

RFID water vending control panel

Coin Cum RFID Based Water ATM

Model No:-ECA4033-GSM

Introduction

This is rfid Vending Machine Controller (VMC) used in water dispensing machines. Its purpose is to collect cashless payment from customers and give them fix quantity dispense. The control panel has nine types of multiple choices for different quantities. We can set dispense quantity for each choice and we can set price individually for each choice. User can set his own requirement. Normally control panel is in standby mode. When user presses the button of his choice then panel demands rfid card for money deduction. On scanning the card by user control panel deducts money from the card as preprogramming by user. It starts dispensing after successful deduction from card. Control panel trigger an external relay which turns on the solenoid valve connected with the relay. Which start dispensing. Relay is turned off as per quantity programmed.

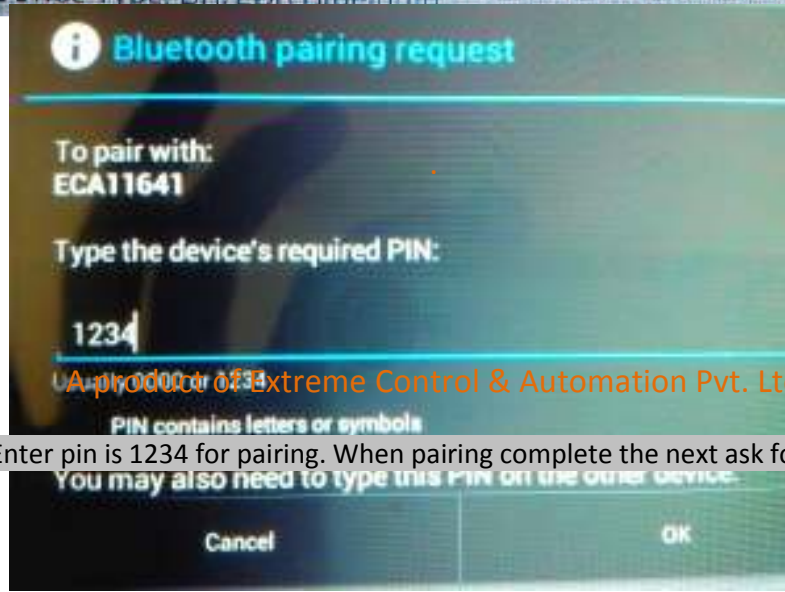
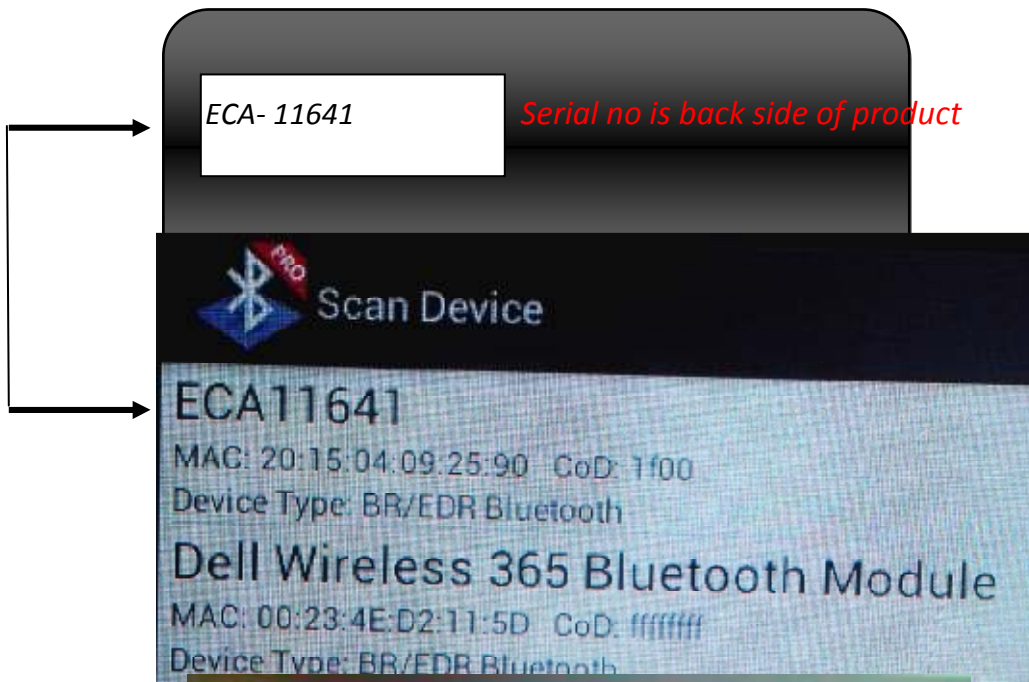
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Setting Menu:-

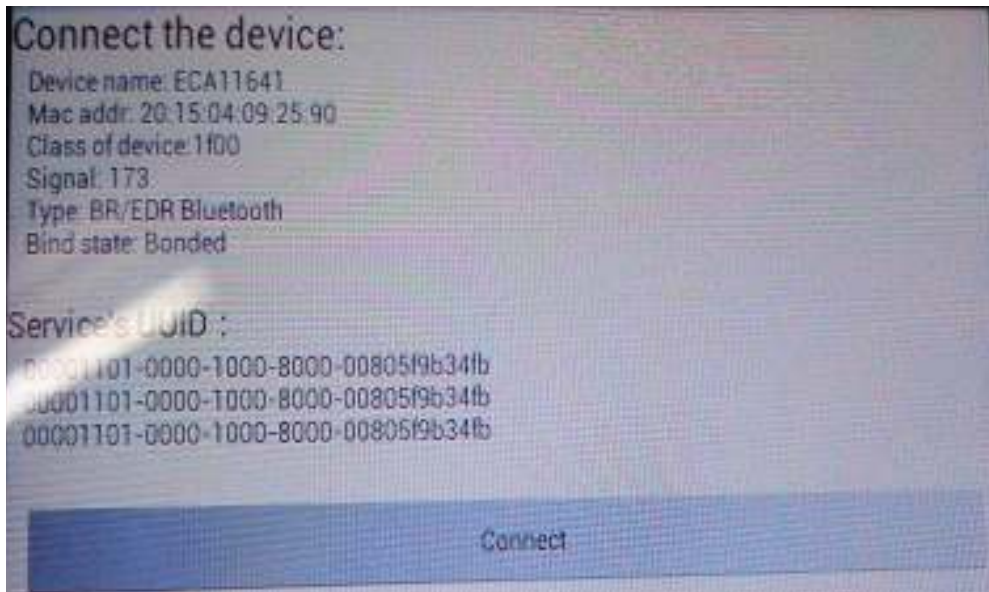
This product is Bluetooth enabled device, it have inbuilt Bluetooth module

That can be paired with mobile and laptop.

To pair with mobile you need an app Bluetooth spp pro tool, Available on Google play store



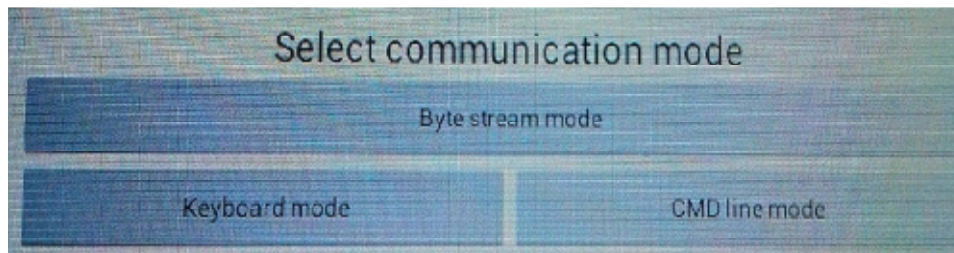
Enter pin is 1234 for pairing. When pairing complete the next ask for connect



Now click on connect

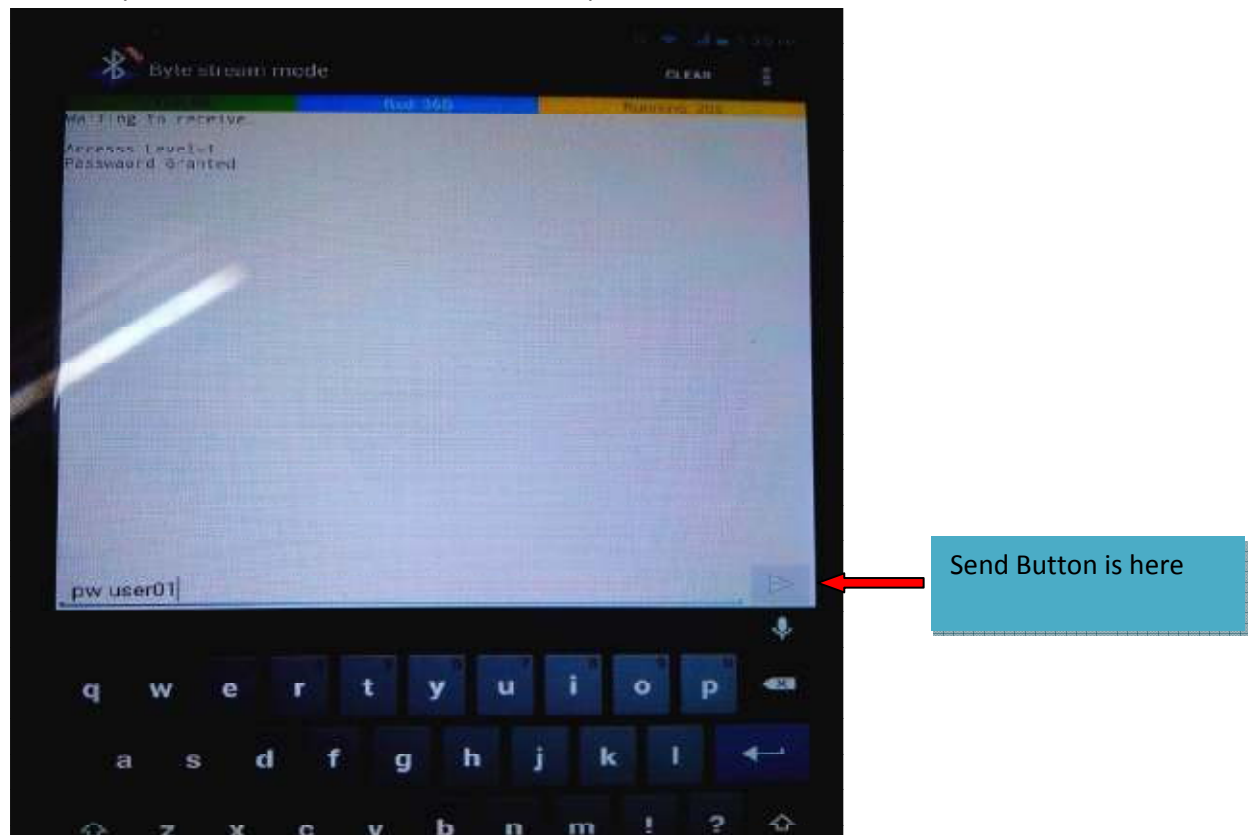
Then next ask for

Click on Byte Stream Mode button



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Now when click on Byte stream mode terminal screen will open like:-



Now do not wait for waiting to receive .now type and send password to open setting menu

Login

Password is required to operate any control panel from android mobile. You may know default password from your administrator .This is six characters password from which login can be done.

All further commands will work only when login is done properly. Any command given without login will revert as invalid command on mobile screen.

If you see invalid command its mean that either you didn't login or not given command properly.

Command format for login is format is [pw] [space][password like 123456]

e.g

`pw xxxxxx`

There are two types of password first is user/operator password and second is master password.

All basic setting can be done by user password, whereas some special setting can be done by master password on demand of administrator only.

Issuing A New Card

If we want to use a new card then we have to first issue it from system. And for this we gives command from mobile. After giving the command panel will demand for new card to be scan on scanner. When user scans the new card it will be issued.

The command format is [issue][space][16 characters card holder name]

e.g

For example: - if we want to issue a name Jacky Chain so we give command issue

`Issue Jacky Chain`

Unissuing A Card

By this feature we can unissue those cards which are already issued. The command format is [unissue] in single word

e.g

`unissue`

and panel demands rfid card for unissuing which is already issued.

Auto unissue (Unissuing Multiple Cards) (May Exist in some models)

If we want to unissue more than one card then we give command **[autounissue]**

e.g

We need to give unissue command once and it starts unissuing cards one by one till we not press any other key to exit this mode for 5 seconds continuously.

Card recharging

Card recharging feature is to fetch value in card and the command is **[rch][space][value in figures]**

e.g

For example: - if we want to recharge with 100 rs. Then we give command

Rch 100

Recharger unlock

When control panel is in recharge mode then unlocking feature is required. We give four digits password to unlock the recharger. The password can be changed by giving command **[lock][space][4 digits password]**

e.g

lock xxxx

Expiry date

This feature is used to calculate the date of expiry from last recharge or issue date. If your card is expired then panel will not accept your card even it have sufficient balance. We can set the expiry date to set expiry date we give command **[exp][space][no. of days in figures]**

e.g.

For example: - if we want to set that new recharged card will expire in thirty days. So we give command

Exp 30

Price

Control panel have nine buttons. We can program price for each button individually and the command is **[price][space][button no][price in figure as you want to set]**

e.g.

if you want to change the price of button no. 2 with amount 100/-. We give command

Price 2100

Dispense time setting

Dispense time is decide the quantity of dispense in **timer mode**. For each count relay will remain on for duration of 100ms (milli seconds). In simple words to turn on relay for 1 second you need to feed 100 counts.

In flow mode dispense time decides the no. of flow sensor pulses count required by flow meter to complete dispensing. To program dispense time the command format is

[cnt][space][button no][figure of count without space]

For example:-

If we want to set button no.2 with dispense time 5 sec then you enter 500 count to turn relay on for five second. And the command is:-

Cnt 2500

Dispense mode setting

By this feature we configure dispense mode.

If mode is T then dispense will done in timer mode. It means the count value fetched for button will be in seconds and relay will turn on for the time programmed in the control panel for that button. Then it will be turned off.

If mode setting is in flow mode then the counts program for button will turn on relay and relay will be turned off when flow meter rotation will be reached to the count fetched for that button.

The command format is

[mode][space][t] (for timer mode)

Or

[mode][space][f] (for flow mode)

e.g.

mode t

or

mode f

Debit enable

This feature is used to enable debit from card or negative value recharging from card. If we configured debit mode enable then on recharge in negative amount the money will be deducted from card. If this feature is disable then negative recharging cannot be done.

So the command format is

[debit][space][y] For enable

Or

[debit][space][n] For disable.

e.g.

debit y

or

debit n

Coin Acceptor Setting

We can use these six types of coins in that coin acceptor.



Which is called (A for 1 rupee coin) (B for 2 rupee coin) (C for 5 rupee coin) and (D for 10 rupee coin).

Dispense Quantity Setting

In this we can program dispense quantity for each type of coins individually. If the controller is set in timer mode then the quantity setting is in multiple of 10 milliseconds.

For example= If we want to run the relay for 1 second so we program 100 counts for 1 sec.

And if we want to set relay runtime for 5 seconds then we program 500 counts.

The command format is **[cnt][space][x][500]**

Where

X is replaced by a for 1Rs.

X is replaced by b for 2Rs.

X is replaced by c for 5Rs.

X is replaced by d for 10Rs.

If Controller is operating in flow meter mode

Then

You give command **[cnt][space][x][y]**

Where:-

Y is the no. of counts required to complete dispense for that coin.

X is replaced by a for 1Rs.

X is replaced by b for 2Rs.

X is replaced by c for 5Rs.

X is replaced by d for 10Rs.

For example= If we want 100cnt for 1 rupee then we give **[cnt][space][a][100]** for 1 rupee

e.g.

cnt a100

If you want to know how much quantity for each coin is programmed in setting menu.

So you can read it all in single command. The command format is **[cnt][space][?]**

e.g.

cnt ?

Tank quantity

This feature tells control panel how much quantity is present in the tank. We can feed this by giving command **[tank][space][q][quantity in liters]**

e.g

For example: - if tank have 500ltr water. Then we fetch

Tank q500

When we take dispense from machine tank quantity is deducted by the amount of quantity dispensed by particular button. And the total tank quantity is decrease by quantity dispense.

Tank capacity

This feature tells the control panel how much the capacity of tank. It is refilled by tank capacity when we press abort button for 10sec. The control panel refill the tank quantity with tank capacity .

And the command is **[tank][space][c][tank capacity in liters]**

e.g

For example: - if the tank capacity is 1000ltr then we give command

Tank c1000

Clear calibration

This is used to set all configuration of dispense counts by 0 for all buttons.

And the command format is **[clearcalib]** and then all dispense time will be replaced by 0 for all buttons.

e.g

clearcalib

Series

This feature is for if we have more than one machine having different series no. We need different cards to operate them .If we want to operate all control panel will same card then we have to set all control panel with single series no. It should be same with card series no. This can be set from 1000 to 99000 any value between this range.

The series setting format is **[series][space][series no. value in figures]**

For example

If we want to set series 14000 then we give following command

Series 14000

Time and date

This command can be use to set real time showing on control panel's screen. If you want to change hour we give command **[hour][space][numeric value of hour in 24 hour format]**

e.g

For example = to set 3 o' clock of day we give command

Hour 15

Similarly to change minute we give command

[Minute][Space][Numeric value in minute]

e.g

For example = we want to set at 55 command is

Minute 55

Similarly to change date command is **[date][space][current date]**

e.g

For example = if we want to set 25 command is

Date 25

Similarly if we want to set month so we give the command **[month][space][current month in figure]**

e.g

For example = to set month 12

Month 12

To set year the command is **[year][space][current year]**

e.g

Year 2016

Get file

Get file is feature for reading all transactions record stored in control panel which contains all detail of in form of transaction is Date ,time ,how much money deducted by card, card holder name ,machine UID no. etc. by giving this command we can see all the transaction details on our mobile screen but remember before giving this command first of all clear your mobile screen by pressing clear button and then you give command get file after giving command we getting all records on mobile screen we go to menu and go to option save file and press the button and then all the transactions getting save to our phone internal memory and the file name is Bluetooth spp pro and the command is **[getfile]**.

e.g

Getfile

Store ID

This feature is for outlet owner to contain more than one outlet. If any owner have more than one outlet he can give number every outlet **for example** = one owner have two outlet or two store then he give store id =1 to first store and give store id =2 to second store . This is to distinguish in reports transactions which store record is on server showing.

Command format is **[storied][space][id value in figure]**

E.g

To set store id =1 we give command

Storeid 1

Total

To see the total sold amount from control panel we give command from mobile total the command is **[total]** and send it will reply the total sold amount.

e.g

total

Delete

By giving this command all the transactions record will be deleted the command is **[del][space][rec]**

e.g

del rec

And if we give command **[del][space][total]** will delete total sold amount but remember the grand total will never be deleted it will submitted always.

e.g

del total

Password change

If you want to set the password as you desire then we give this command **[setpw1][space][6 characters password]** but remember if you want to change user password then you have to first login by giving existing user password.

e.g

```
setpw1 xxxxxx
```

We can give this command to change master password also. We have to already login by existing master password then we give command **[setpw2][space][new password]**

e.g

```
setpw2 xxxxxx
```

Note: - Some Feature Exist in Wifi or GSM models only

Host (Exist in Wifi or GSM models only)

Host setting is used in server setting generally it does not Required generally. It is required only when host address or some server setting is changed by administrator.

Host address can be change by giving this command

```
[host][space][your website address name without www.]
```

e.g

```
host ecadb.in
```

By factory default the host address is ECA DB.in or ECA 11.inwe highly recommend that user don't disturb this.

Post address (Exist in Wifi or GSM models only)

Post address is also part of server setting and it is required when something change from server or administrator by giving this command we can change web page address and the command is **[postAddr][space][new web url without host name]**

e.g

To set post address on our demo page is

postAddr ECA 4020 Demo 01. _write.php

APN name setting(Exist in Wifi or GSM models only)

We use this command to configure gsm enable models. APN is the access point name. It is different for any sim provider .

For example :-

if you have Vodafone sim so you give command **[apn][space][www]**

for reliance it is RCOM

for airtel Airtel gprs.com

Apn required for gsm module to connect with the service provider's server to access internet data . connection maybe denied by service provider in case of not having sufficient internet package subscription. In that case file on server updating can't be done.

Name

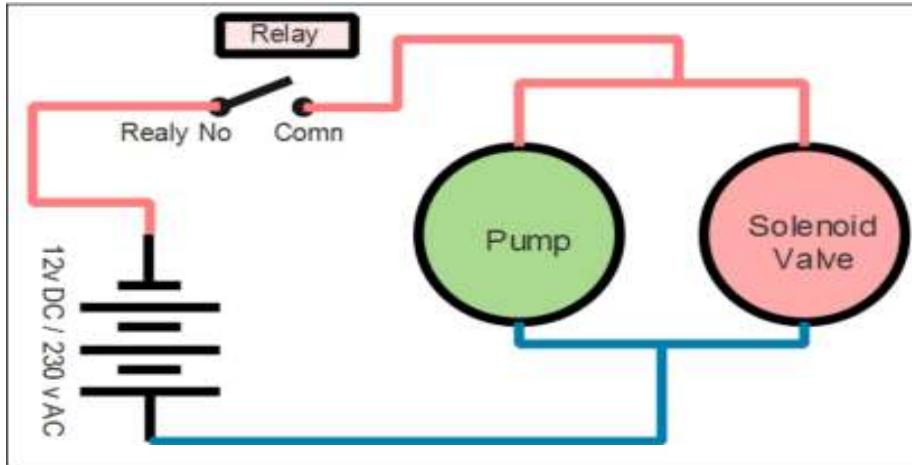
This feature is for changing card holder name this can be done by giving command **[name][space][user name with in 16 characters]**

e.g

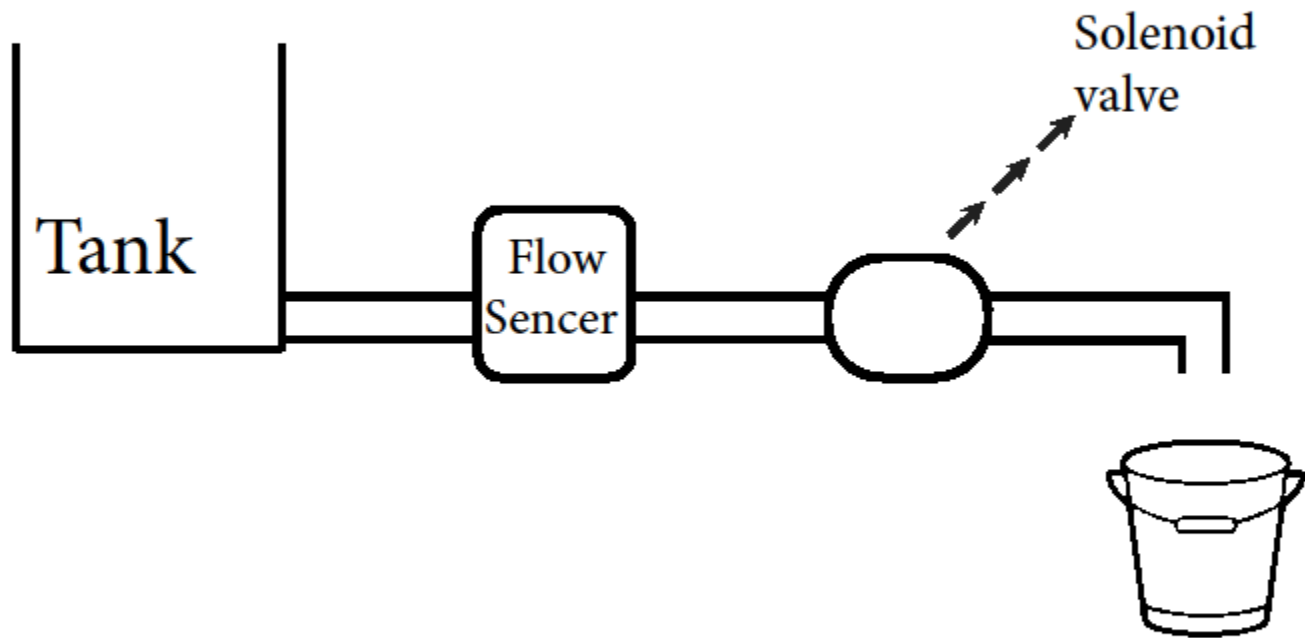
Name harshit Kumar

Continued

Connection Diagram:-



Plumbing Diagram



Warning: - Remember gray wires should never touch each other while panel on otherwise panel will bloom. And relay driver will be destroyed.

