ACD3180
Card Dispenser/Encoder System

# User Manual and Setup Guide

"Choose ACDI for all your document vending needs"

# <u>Introduction</u>

## *Overview*

The ACD3000 series of card reader, dispenser, encoder, and revalue products builds upon ACDI's years of experience in payment and cost recovery solutions.

The ACD3180/3080 is an automatic (unattended) self service debit card dispenser, encoder, and revalue station.   Utilizing the EX series technology, these units are designed with the following in mind:
- Reliability
- Simplicity of User Operation
- Simplicity of Unit Servicing
- Flexibility for any environment

Every effort has been made in design and testing to ensure that your ACD3000 series product will provide years of trouble free operation.  The ACD3180/3080 is made to be simple to install and simple to use.   This manual will guide you through the setup, basic operation, and servicing.

The ACD3000 family of products includes:
- Copymate Express – Single Price Card Reader for Copy Control
- ACD3000 – Multiple Price Line Card Reader
- ACD3000S – Card Reader for Copy Control and Print Release
- ACD3080 – Cash Only Card Dispenser
- ACD3180 – Cash Only Card Dispenser, Encoder, and Revalue
- ACD3180CC – Credit Card and Cash Dispenser, Encoder, and Revalue
- EX2000BC -  Coin, Bill, Card Copy Control
- EX2000SBC -  Coin, Bill Card, Copy  Control and Print Release

**Do not attempt to service the main power supply!!!**

# Setup

## *Unpacking the Dispenser System*

The following equipment is included in your **ACD3180/3080** shipment:
- ACD3180/3080 card dispenser/encoder.
- Black 10ft 110V PC-style power cable.
- Service Keys
- Installation and Service Manaul(This document)
- 3000PD Pedestal Stand(optional)

## *Physical Mounting*

Your ACDI 3180/3080 card vending system will mount easily to a 3000PD pedestal stand or it can mount to the wall, or cabinet.  If mounting to a wall or cabinet, be sure wall and mounting hardware can support +70 lbs. Apply power to the unit by plugging the power cable to the bottom of the unit and the opposite end into a standard 110 Volt AC power outlet.

## *Loading Cards*

Open cabinet using service key. The card dispense mechanism can hold approximately 250 standard CR80 (credit card sized) cards.  Cards can be loaded by removed the hopper, or opening the front access panel of the dispenser mechanism.

**To load the hopper out of the dispenser...**
1. Press down on the lever arm located on the right side of the hopper.
2. Slide the hopper back approximately ¾" and lift up at a slight angle while moving the hopper to the rear.
3. Load the hopper and re-install in the dispenser.
4. Set the card weight ("I" shaped metal bar) on top of the cards.

**To load the hopper in-place...**
1. Press in on the lever arm located on the hopper front access door.
2. Lift the access door and rotate to the back level with the top of the hopper.
3. Slide the access door to the rear and it will rest on the rear top of the hopper.
4. Load the cards through the access opening.
5. Set the card weight ("I" shaped metal bar) on top of the cards.

# __Operation__

## *Card Purchase Sequence with Cash*

<div align="center">

**Insert $ 1.00
to Purchase Card**

</div>

Patrons at any time can insert money into the bill acceptor to add a cash balance to the screen. When the cash balance is greater than the dispense price of a card the dispense light will light up.

<div align="center">

**Cash Balance
$ 5.00**

</div>

Pressing the dispense button when the dispense light is lit will dispense a card at the current dispense price.

<div align="center">

**Insert Card
to Initialize**

</div>

All cards must be inserted into the revalue slot for initialization.  If there is a remaining cash balance that balance will be added to the value on the card.

<div align="center">

**Card Balance
$4.00**

</div>

Additional funds can be added to the current card balance by inserting additional currency or swiping a valid credit card.  When the patron is ready to receive their card back they simply hit the dispense button.

## *Card Purchase Sequence (Exact Change)*

The exact change option allows the purchase of an ACD3080 device with no card revalue device.  Cards can be pre-encoded with a direct value for immediate purchase.

<div align="center">

**Insert $ 10.00
to Purchase Card**

</div>

Patrons at any time can insert money into the bill acceptor or swipe a valid credit card (credit card acceptor optional) to add a cash balance to the screen.

> **Please Use**
> **Exact Change**

When the exact change flag is set, patrons can insert only enough currency to dispense a stored value card. . When the cash balance is equal to the dispense price of a card the dispense light will light up.

> **Cash Balance**
> **$ 10.00**

Pressing the dispense button when the dispense light is lit will dispense a card at the current dispense price.

## *Card Purchase Sequence with Credit Card*

> **Insert $ 1.00**
> **to Purchase Card**

Patrons at any time may swipe a valid credit card (credit card acceptor optional) to add a cash balance to the screen.

> **Charge $5.00**
> **to Credit Card**

Pressing the dispense button will increment the credit card charge by the CC increment value set in the service mode. Waiting on the selection for more than 5 seconds will select that value.

> **Charge $5.00**
> **Confirm?**

Pressing the dispense one more time before timeout will add this value to your cash balance.

> **Transaction**
> **Cancelled**

Failing to confirm your transaction before timeout will cause the transaction to be cancelled.

```
Cash Balance
$5.00
```

Pressing the dispense button when the dispense light is lit will dispense a card at the current dispense price.

```
Insert Card
to Initialize
```

All cards must be inserted into the revalue slot for initialization.  If there is a remaining cash balance that balance will be added to the value on the card.

```
Card Balance
$4.00
```

Additional funds can be added to the current card balance by inserting additional currency or swiping a valid credit card.  When the patron is ready to receive their card back they simply hit the dispense button.

## Card Revalue Sequence with Cash

```
Insert Card
to Add Value
```

Patrons at any time can insert a valid card into the recharge slot to add value to their card.  Once a valid card is inserted the balance will display on the screen.

```
Card Balance
$10.00
```

Subsequently, the patron need only insert to add additional value to their card. When the patron is ready to receive their card back they simply hit the dispense button.

## *Card Revalue Sequence with Credit Card*

```
┌─────────────────────────┐
│       Insert Card       │
│      to Add Value       │
└─────────────────────────┘
```

Patrons at any time can insert a valid card into the recharge slot to add value to their card.  Once a valid card is inserted the balance will display on the screen.

```
┌─────────────────────────┐
│      Card Balance       │
│         $10.00          │
└─────────────────────────┘
```

Then the patron need only swipe credit card to add additional value to their card.

```
┌─────────────────────────┐
│      Charge $5.00       │
│      to Credit Card     │
└─────────────────────────┘
```

Pressing the dispense button will increment the credit card charge by the CC increment value set in the service mode.  Waiting on the selection for more than 5 seconds will select that value.

```
┌─────────────────────────┐
│      Charge $5.00       │
│        Confirm?         │
└─────────────────────────┘
```

Pressing the dispense one more time before timeout will add this value to your cash balance.

```
┌─────────────────────────┐
│       Transaction       │
│        Cancelled        │
└─────────────────────────┘
```

Failing to confirm your transaction before timeout will cause the transaction to be cancelled.

```
┌─────────────────────────┐
│      Card Balance       │
│         $15.00          │
└─────────────────────────┘
```

When the patron is ready to receive their card back they simply hit the dispense button.

## *General Informational Screens*

### Insert Card to Add Value

> Insert Card
> to Add Value

Patrons at any time can insert a valid card into the recharge slot to add value to their card.  This screen cycles through to inform patrons they can revalue their cards.

### Insert $ X.XX to Purchase Card

> Insert $1.00
> To Purchase Card

Patrons at any time can insert money into the bill acceptor or swipe a valid credit card (credit card acceptor optional) to add a cash balance to the screen.  This screen cycles through to inform patrons the price for dispensing a card from the system.

### Insert Money to Purchase Card

> Insert Money
> To Purchase Card

Patrons at any time can insert money into the bill acceptor or swipe a valid credit card (credit card acceptor optional) to add a cash balance to the screen.  This screen cycles through when the dispense price is $0.00.  This allows a patron to get a card for free if they add value to the card.

### Please Use Exact Change

> Please Use
> Exact Change

This screen cycles through when the Exact Change option is set in the service mode.  This setting forces a patron to insert only the exact dispense price.  This message also appears when a bill larger than the dispense price is inserted.  This allows dispensing of pre-encoded cards when the card reader mechanism is not present (ACD3080).

## Dispenser is Empty

```
Dispenser is
Empty
```

This screen cycles through when the dispenser hopper is out of cards.  Patrons may continue to revalue cards that are inserted.  When no card is inserted, the bill acceptor and credit card device are temporarily disabled.

## Dispenser is Jammed

```
Dispenser is
Jammed
```

This screen most often occurs when a card is not removed from the card dispense slot after purchase. This message can occur in rare instances when there is an internal card jam. Removing the physical jam will usually resolve this error message.

# Service Mode

## *Service Buttons*

There are 4 buttons for input on the ACD3180/3080 dispenser; 3 service buttons located on the upper panel of the door and the dispense button located on the front of the door.

1. Scroll Button(Center Red Button)
2. FWD Button(Black Button on Right Side)
3. BACK Button(Black Button on Left Side)
4. EXIT Button(Front Dispense Button)

- The Scroll button is used to enter the service mode and scroll to the next menu option.
- The FWD button is used to select a menu item and to increment values.
- The BACK button is used to decrement values.
- The EXIT button is used to return unit to standard operation.

## *Dispense Price*

The dispense price is the amount patrons will pay for the card. The ACD3180 /3080 are set by default to dispense cards at $1 each.  Set the dispense price to amount desired to dispense a card.  Setting the dispense price to $0.00 will allow patrons to purchase a card for free with all money inserted added to their card balance.

To adjust the dispense price follow these steps below.

### Setting Dispense Price

1. Press Scroll button to enter service mode.
2. Display should read "Dispense Price     $ 1.00"
3. Press *FWD* or *BACK* until display reads desired dispense price.
4. Press *EXIT* to return to normal operation.

The money increment allows the dispense price to be set at increments other than the default $.50.  To adjust the money increment follow these steps below.

### Setting Money Increment

1. Press Scroll button to enter service mode.
2. Press Scroll button until display reads "Money Increment     $ 0.50"
3. Press *FWD* or *BACK* until display reads desired money increment.
4. Press *EXIT* to return to normal operation.

## *Peripheral Present Status*

The ACD3180/3080 comes in a variety of configuration setups.  If a particular peripheral is not present the unit will display a warning message.  This allows technicians to properly troubleshoot and service the unit.  If your unit does not have certain peripherals installed the error messages can be turned off to minimize confusion for patrons.

To disable a particular Trouble Shooting screen

### Set Card Mechanism Present Status

1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Card Mechanism    Present
3.  Press *FWD* or *BACK* to toggle between "Present "and "Not Present".
4.  Press *EXIT* to return to normal operation.

### Set Bill Acceptor Present Status

1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Bill Acceptor    Present
3.  Press *FWD* or *BACK* to toggle between "Present "and "Not Present".
4.  Press *EXIT* to return to normal operation.

### Set Credit Device Present Status

1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Credit Device    Present
3.  Press *FWD* or *BACK* to toggle between "Present "and "Not Present".
4.  Press *EXIT* to return to normal operation.

### Set Dispenser Present Status

1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Dispenser    Present
3.  Press *FWD* or *BACK* to toggle between "Present "and "Not Present".
4.  Press *EXIT* to return to normal operation.

## *Exact Change*

The Exact change setting allows the ACD3080/3180 to work as a dispense only device. Patrons must insert the exact dispense price before a card will be dispensed. This setting is most often used in a situation where the card already has a pre-encoded value on it.

To change Exact Change Status follow the steps below.

### Set Exact Change Requirement
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Exact Change    Not Required
3.  Press *FWD* or *BACK* to toggle "Required "and "Not Required".
4.  Press *EXIT* to return to normal operation.

## *Usage Meters*

The ACD3180/3080 keeps track of currency received, cards dispensed, and value added to cards. These settings will allow easy accounting and money management of your vending system. All values can be read directly from the lcd screen or printed to optional P.O.S. printer.

To View Meter Settings follow the steps below.

### Cards via Cash
This meter keeps track of the number of cards dispensed by inserting paper currency into the unit.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Card via Cash    xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

### Cards via CC
This meter keeps track of the number of cards dispensed by swiping a valid credit card.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Card via Credit    xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Card $ via Cash

This meter keeps track of the total dollar value for all cards dispensed by inserting paper currency into the unit.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Card $ via Cash    $xxx.xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Cards $ via CC

This meter keeps track of the total dollar value for all cards dispensed by swiping a valid credit card.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Card $ via Credit    $xxx.xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Revalue Sales

This meter keeps track of the total dollar value added to cards during the revalue process. ***Note: This includes the remaining balance on a card dispense transaction.***
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Revalue Sales    $xxx.xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Total Sales

This meter keeps track of total sales for the ACD3180/3080 unit.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Total Sales    $xxx.xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Total Stacker

This meter keeps track of total dollar value of bills currently in the bill stacker. The receipt print-out breaks this value up into individual bill denominations.
1.  Press Scroll button to enter service mode.
2.  Press Scroll button until display reads "Total Stacker    $xxx.xx"
3.  Press Scroll button to continue to next meter.
4.  Press *EXIT* to return to normal operation.

## Total Credit

This meter keeps track of total credit sales.  This information is also available on the web.
1.   Press Scroll button to enter service mode.
2.   Press Scroll button until display reads "Total Credit    $xxx.xx"
3.   Press Scroll button to continue to next meter.
4.   Press *EXIT* to return to normal operation.

## Print Meters

This function allows all meters to be printed to the optional printer peripheral.
1.   Press Scroll button to enter service mode.
2.   Press Scroll button until display reads "Print Meters
3.   Press FWD button to start printing screen will read "Printing..."
4.   Press *EXIT* to return to normal operation.

## Print Out Example

```
        Dispenser Report

Cards sold via Cash:    10
Cards sold via Credit:  5
------

Total Sales:      $  165.00
------

Card Sales via Cash:$ 10.00
Card Sales via Credi$  5.00
Revalue Sales:      $150.00
-----

Credit Sales:       $125.00
Bill Stacker:       $ 40.00
-----

Ones                $ 15.00
Fives               $  5.00
Tens                $  0.00
Twenties            $ 20.00
Other Bills         $  0.00
```

Once meters have been recorded and money has been extracted from the unit; it is very important to reset all meters.  This allows the unit to properly reflect usage and create an appropriate level of accountability.  Detailed reporting on credit card sales is also available via a website interface.   Your website username and password will be setup as part of the merchant initialization process for your credit card option.

## Reset Meters

This function will reset the meters.
1. Press Scroll button to enter service mode.
2. Press Scroll button until display reads "Reset Meters"
3. Press BACK button to reset meters screen will read "Resetting.."
4. Press *EXIT* to return to normal operation.

## *Credit Card Balance Selection Setup*

The ACD3180/3080 has a single button interface for interaction with patrons. These settings configure the behavior of that button when a credit card has been swiped.

### CC Minimum

This sets the minimum value a patron can add to their balance using a credit card. Default value is $5.00
1. Press Scroll button to enter service mode.
2. Press Scroll button until display reads "CC Minimum    $ xx.xx"
3. Press *FWD* or *BACK* until display reads desired value.
4. Press *EXIT* to return to normal operation

### CC Maximum

This sets the maximum value a patron can add to their balance using a credit card. Default value is $20.00
1. Press Scroll button to enter service mode.
2. Press Scroll button until display reads "CC Maximum    $ xx.xx"
3. Press *FWD* or *BACK* until display reads desired value.
4. Press *EXIT* to return to normal operation

### CC Increment

This sets the value to increment the credit card transaction when the dispense button is pressed.  Default value is $1.00
1. Press Scroll button to enter service mode.
2. Press Scroll button until display reads "CC Increment    $ xx.xx"
3. Press *FWD* or *BACK* until display reads desired value.
4. Press *EXIT* to return to normal operation

## *Card Reader Service Mode*

The ACD3180 comes equipped with a magnetic stored value card reader.  This device has a separate service mode which allows advanced setup of the card reader mechanism and its behavior. ***Only enter this service mode if directed by ACDI.***

### Entering CMX Service Mode

> To enter the card reader service mode follow the steps below.
> 1. Press Scroll button to enter service mode.
> 2. Press Scroll button until display reads "CMX Service Mode"
> 3. Press *FWD*  to select this option.
> 4. Press *EXIT* to return to normal operation

### Encode Cards - Cash

> 1. Follow instructions for entering CMX Service Mode
> 2. Press *SCROLL* to screen should read "Encode Cards?"
> 3. Press *FWD* screen will read "G1 Code:      9" '9 is default (your actual group 1 code will display)
> *4. If group 2 or group 3 cards are needed Press SCROLL until G2 or G3 appears.*
> 5. Press *FWD* screen will read "Encode Cash?"
> 6. Press *FWD* screen will read "Balance:$   .000"
> 7. Press *FWD* to increase value to encode by .01
> 8. Press *BACK*  to decrease value to encode by .01
> 9. When you have the card at the desired value, Press *SCROLL*.
> 10. Wait for card reader to prompt "To Encode, Insert Card"
> 11. Insert card to be encode.
> 12. You may continue to encode as many cards as you want at this value.
> 13. Press FWD will leave the Service Mode.

## Encode Cards - Units

1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *FWD* screen will read "G1 Code:      9" ' 9 is default (your actual group 1 code will display)
4. *If group 2 or group 3 cards are needed Press SCROLL until G2 or G3 appears.*
5. Press *FWD* screen will read "Encode Cash?"
6. Press *SCROLL* screen will read "Encode Units?"
7. Press *FWD* screen will read "Balance:      0"
8. Press *FWD* to increase value to encode by 1 unit.
9. Press *BACK* to decrease value to encode by 1 unit.
10. When you have the card at the desired value, Press *SCROLL.*
11. Wait for card reader to prompt "To Encode, Insert Card"
12. Insert card to be encode.
13. You may continue to encode as many cards as you want at this value.
14. Press FWD will leave the Service Mode.

## Card Max

1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *SCROLL* until screen reads "Crd Max:$    .000" or current max.
4. Note you will step through several menus.
5. Press *FWD* to increase value by .01
6. Press *BACK*  to decrease value by .01
7. Press *SCROLL* until screen reads "Exit Use Bypass"
8. Press *BACK* to leave the Service Mode.

## Card Time Out

1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *SCROLL* until screen reads "Crd Timeout: $    .000".
4. Note you will step through several menus.
5. Press *FWD* to increase value by 1 minute
6. Press *BACK*  to decrease value by 1 minute
7. Press *SCROLL* until screen reads "Exit Use Bypass"
8. Press *BACK* to leave the Service Mode.

**Group Code 1 – Setting is preset and should only be changed if instructed.**
1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *SCROLL* until screen reads "G1 Code:   9" or current group 1 code.
4. Note you will step through several menus.
5. Press *FWD* to increase value by 1
6. Press *BACK*  to decrease value by 1
7. Press *SCROLL* until screen reads "Exit Use Bypass"
8. Press *BACK* to leave the Service Mode.

**Group Code 2 – Setting is preset and should only be changed if instructed.**
1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *SCROLL* until screen reads "G2 Code:   2" or current group 1 code.
4. Note you will step through several menus.
5. Press *FWD* to increase value by 1
6. Press *BACK*  to decrease value by 1
7. Press *SCROLL* until screen reads "Exit Use Bypass"
8. Press *BACK* to leave the Service Mode.

**Group Code 3 – Setting is preset and should only be changed if instructed.**
1. Follow instructions for entering CMX Service Mode
2. Press *SCROLL* to screen will read "Encode Cards?"
3. Press *SCROLL* until screen reads "G3 Code:   3" or current group 1 code
4. Note you will step through several menus.
5. Press *FWD* to increase value by 1
6. Press *BACK*  to decrease value by 1
7. Press *SCROLL* until screen reads "Exit Use Bypass"
8. Press *BACK* to leave the Service Mode.

**Site Code – Setting is preset and should only be changed if instructed.**

1.  Follow instructions for entering CMX Service Mode
2.  Press *SCROLL* to screen will read "Encode Cards?"
3.  Press *SCROLL* until screen reads "G3 Code:   3" or current group 1 code.
4.  Note you will step through several menus.
5.  Press *FWD* to increase value by 1
6.  Press *BACK*  to decrease value by 1
7.  Press *SCROLL* until unit exits the Service Mode

**Rom Code –Setting is preset and should only be changed if instructed.**

1.  Follow instructions for entering CMX Service Mode
2.  Press *SCROLL* to screen will read "Encode Cards?"
3.  Press *SCROLL* until screen reads "G3 Code:   3" or current group 1 code.
4.  Note you will step through several menus.
5.  Press *FWD* to increase value by 1
6.  Press *BACK*  to decrease value by 1
7.  Press *SCROLL* until unit exits the Service Mode.

# Trouble Shooting

## *Trouble Shooting Screens*

### Credit Device Not Ready

```
Credit Device
Not Ready
```

This message is displayed when the unit is currently unable to communicate with a credit card device.  If your unit is not equipped with a credit module this message can be turned off in the service mode.

### Dispenser Not Found

```
Dispenser
Not Found
```

This message is display when the unit cannot communicate with the card dispenser mechanism.  Check to make sure all cables are securely connected.  In rare cases where the machine is not equipped with this option this message can be turned off in the service mode.

### Bill Acceptor Not Found

```
Bill Acceptor
Not Found
```

This message is display when the unit cannot communicate with the bill acceptor.  Check to make sure all cables are securely connected.  If your machine is not equipped with this option this message can be turned off in the service mode.

### Card Mechanism Not Found

```
Card Mechanism
Not Found
```

This message is displayed when the unit cannot communicate with the card reader device.  Check to make sure all cables are securely connected.  If you have a unit such as the ACD3080 that is not equipped with a card reader, this message can be turned off in the service mode.

## *Routine Maintenance*

### Cleaning Cards

The card reader mechanism present in the ACD3180 is designed to function without error for thousands upon thousands of card read and writes.  In order to maximize the life span of your product and ensure the highest reliability, periodic cleaning of the read/write head is necessary.   This can be done with simple to use alcohol cleaning cards.  Simply place cleaning card into unit and let machine cycle card.  The unit will attempt to read and write the card and then display an unknown card reader error.  This is normal and the read write head should now be clean.

### Exterior Cleaning

Depending on the environment of the install, it may be necessary to periodically clean and dust the exterior of the unit with a damp cloth.  This ensures that all card insert and dispense slots are free of dust and grime build up.

# **<u>NOTES</u>**

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