



Access Control Devices Incorporated

EX2000 Series
Vending System

User's Manual

“Choose ACDI for all your document vending needs”
User's Manual

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Introduction

Overview

This document describes the operation and service of the *EX2000* series copy/print controller. The **EX2000 Series** is an advance generation of copy/print control, combining innovation and engineering to meet the demand of the ever-changing market.

This *EX2000* has up to 4 separate Price Lines to allow for the charging of black and white copies, color copies, and large paper sizes. For Staff Copies, the EX2000 has an external keypad to allow User and Supervisor copies at no charge. In addition, the user may also select the “Bypass Key” option for Staff Copies.

The EX2000 is also equipped with a serial interface to allow for communication with Print Management Software and an external printer for reports and meter readings. This interface allows the EX2000 to be field programmable for software updates.

The **EX2000** series is available in a variety of options and configurations including coin, bill, stored value, and credit card options.

The **EX2000 Series** vending system will accept any combination of nickels, dimes, quarters, or dollar coins, as well as \$1, \$5, \$10, and \$20 bills and the ACDI CopyMate Cards intended for use with this system. Insert coins through the top of the unit and insert bills in the slot on the front of the housing. Once the money is deposited, the display shows the \$ amount available, also known as *ESCROW* Amount. For normal operation, when the escrow amount is greater than or equal to a given Price Line the *EX2000* will enable that feature on the Copier. The EX2000 receives signals from the copier that indicate a copy has been made and at what Price Line. The copy is then metered by the EX2000 and a new escrow value is calculated, in addition, Price Lines are re-assessed for validity. Up to 8 distinct price lines are supported depending on copier or M.F.P. our coin-op is interfaced to. Press *EJECT* or the coin return plunger to dispense remaining balance.

Staff Copies

Staff Copies are available using the Bypass key, Supervisor PIN, or User PIN. As copies are made in any of these modes, the EX2000 meters each copy and provides reports to verify usage. (Please refer to illustration 1.01)

Setup

Unpacking the Vending System

The following equipment is included in your **EX2000 Series** shipment:

- EX2000 Series vending unit
- 2015PD Pedestal Stand or FRONT LOCKING CASSETTE STAND (FLC)
- Parts Box including:
 - Operation and Service Manuals
 - 24V Power Supply
 - Sign Kit
 - Key Chain with keys (Bypass/Door/Cashbox)
 - Bolt Pack for mounting the EX2000 to the pedestal stand
 - H10-Interface Harness (Copier Specific)
 - Interface Installation Instructions

Physical Mounting

Your ACDI Vending System will mount easily to any of the stands designed and offered by ACDI or it can mount to the wall, or cabinet. If mounting to a wall or cabinet, route all cabling through the cutouts at the bottom.

Power-up

When powering on the **EX2000 Series**, the display will read “Initializing Coin-op #. ##” (version #) If the unit is new and coins are not loaded into the Coin Changer, the LCD Display will read as follows:

“Please Use Exact Change”
 “B&W \$0.10”
 “Color \$0.50”

After loading coins into the **EX2000 Series**, the LCD Display will read as follows:

“Please Insert Coin or Bill”
 “B&W \$0.10”
 “Color \$0.50”

***Please refer to “ADJUSTING WELCOME SCREENS” for information on editing Text and the Amount of Time each screen is displayed.

Loading Coins

- Manual Fill Mode
 - Insert Operators Key; turn to the “On” position and Enter 8-digit supervisor pin number (DEFAULT - 73784230)
 - Press *FWD* until display reads “Manual Fill”
 - Press *ENTER* and begin loading the coins through the Coin Insert slot on top of the **EX2000 Series** vending system (The system will automatically sort and store the currency)
 - When complete, press *ENTER* to save in memory

FOR ACCURATE REPORTS: DO NOT LOAD COINS DIRECTLY INTO THE COIN TUBES.

Coin Tube Capacity

	5¢ tube	10¢ tube	25¢ tube	
				LO 25¢
Low Sensor Level	7(35¢)	9(90¢)	7(\$1.75)	7(\$1.75)
Full Sensor Level	78(\$3.90)	113(\$11.30)	77(\$19.25)	22(\$5.50)
Hand Load Level	86(\$4.30)	125(\$12.50)	95(\$23.75)	95(\$23.75)

Selecting the Copier

The **EX2000 Series** has several preconfigured settings for Copier Type. In Default mode, the **EX2000 Series** interfaces with most B&W copiers and printers. Choose the copier from the list that most closely matches your model copier. This will adjust the prices and screens to reflect the newly selected copier model. Specific Interface Instructions are included with each order and better explain the interface to the mfp.

Changing the Copier Type

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER* to select the Setup Menu
6. Press *FWD* until display reads “Select Copier”
7. Press *ENTER*, display will read “Copier Default” (Or, current copier type)
8. Press *ENTER* and a flashing cursor will appear
9. Press *FWD* or *BACK* to change the copier type
10. Once display show your preferred Copier Type, press *ENTER* to save it
11. Press *EXIT* 2 times followed by *EJECT* to exit the Service Mode.

Setting the Price per Copy

The EX2000 series allows a wide array of pricing options based on the copier or mfp connected as well as the ability to charge different prices based on the type of currency source being used. To set the price for credit card or stored value card systems addons, set the price for the appropriate price group.

You can adjust the cash price per copy by following the steps below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Price Menu”
5. Press *ENTER*, then display will read “Edit Prices Cash Customers”
6. Press *FWD* until display shows price group you want to edit.
7. Press *ENTER*, then display will read “Cash Customers Price 1 \$0.10”, or whatever Price Line 1 has been programmed for
8. Press *ENTER* to Edit Price 1 (cursor will appear on the display)
9. Using the keypad enter the new price per copy and press *ENTER* to save
10. Press *FWD* to edit Price Line 2 and follow steps 6-8

Note: Price Lines 3 & 4 are “adders” to price lines 1 & 2 to account for duplex or premium paper size. For a better understanding of the pricing matrix, please review example shown below.

EX2000 Price Menu		Price Label (Example)
Price 1	\$0.10	B&W
Price 2	\$0.50	Color
Price 3	\$0.20	B&W Premium Paper
Price 4	\$0.20	B&W Duplex
Price 5	\$0.40	B&W Premium Paper Duplex
Price 6	\$0.60	Color Premium Paper
Price 7	\$1.00	Color Duplex
Price 8	\$1.20	Color Premium Paper Duplex

Setting the Minimum Vend

The EX2000 series has a feature called the minimum vend. This is the smallest amount that must be entered to enable the copier or mfp. By having this setting independent from the price lines, the EX2000 series can force a patron to deposit enough money to cover all vend options on copiers that do not give advanced signaling for color, duplex, and paper size options.

You can adjust the minimum vend by following the steps below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Price Menu”
5. Press *ENTER*, then display will read “Edit Prices Cash Customers”
6. Press *FWD* until display reads “Edit Prices Minimum Vend”
7. Press *ENTER*, then display will read “Minimum Vend Price \$0.00”.
8. Press *ENTER* to Edit Price (cursor will appear on the display)
9. Using the keypad enter the new price and press *ENTER* to save.
10. Press *EXIT* 2 times followed by *EJECT* to exit the Service Mode.

Setting the Maximum Refund

The EX2000 series maximum refund setting requires a patron to continue making copies until the escrow balance goes below this setting. This ensures that the coinop is not required to give out excessive change when larger paper currency denominations are used.

You can adjust the minimum vend by following the steps below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Price Menu”
5. Press *ENTER*, then display will read “Edit Prices Cash Customers”
6. Press *FWD* until display reads “Edit Prices Maximum Refund”
7. Press *ENTER*, then display will read “Maximum Refund Price \$20.00”.
8. Press *ENTER* to Edit Price (cursor will appear on the display)
9. Using the keypad enter the new price and press *ENTER* to save.
10. Press *EXIT* 2 times followed by *EJECT* to exit the Service Mode.

Setting the Maximum Escrow

The EX2000 series maximum escrow setting disables the bill and coin acceptor once the escrow balance goes above this setting. This prevents patron placing too much money into the vend tower.

You can adjust the maximum escrow by following the steps below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Price Menu”
5. Press *ENTER*, then display will read “Edit Prices Cash Customers”
6. Press *FWD* until display reads “Edit Prices Maximum Refund”
7. Press *ENTER*, then display will read “Maximum Refund Price \$20.00”.
8. Press *ENTER* to Edit Price (cursor will appear on the display)
9. Using the keypad enter the new price and press *ENTER* to save.
10. Press *EXIT* 2 times followed by *EJECT* to exit the Service Mode.

Identifying the Firmware Version

The **EX2000 Series** provides the ability to for on-site upgrades (Refer to the RS232 Interface Section). To know whether your machine requires an upgrade, you can check to see which Version is currently loaded on your **EX2000** by following the instructions below.

Show EX2000 Firmware Version

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER* to select Setup Menu
6. Press *FWD* until display reads “Other Settings”
7. Press *ENTER*, display will read “Coin-Op X.XX” (current version #)
8. Press *EXIT* 2 times followed by *EJECT* to exit the Service Mode.

Features

Membrane Switch/Overlay

The EX2000 features a membrane switch keypad built in to the graphic overlay. This keypad provides access to all menus and options as well as supervisor pin accounts and user pin accounts. The graphic overlay illustrates the proper instructions for operating the EX2000. There are several different options and models available. The model number indicates which options are installed in each EX2000. The LCD is a 2 line, 16-character display with a backlight allowing for multiple lines of text and instructions to be displayed.

Electronic Changer and Bill Acceptor

The electronic changer features nickel, dime, and quarter payout along with electronic interface featuring MDB. Reliable 3-tube changer offers enhanced electronics in the acceptance of the Susan B. Anthony and Sacagawea coins.

The Bill Acceptor series accepts \$1, \$5, \$10, and \$20 bills along with electronic interface featuring MDB. With the new bill path clearing software routine, the Acceptor has significant transport reliability

Key Benefits

- Expandable programmable memory for easy updates.
- Patented Coin Sensing technology for resistance to counterfeiting
- Changer capacity of \$40.55 in nickel, dime, and quarter payout.
- On site field programming.
- Innovative Flexstack bill box expands to hold up to 650 bills.
- Resists counterfeiting by subjecting each bill to two types of test unlike any other bill acceptor.
- Flash programmable microcontroller, simplified upgrades for future feature additions.
- Resists cheating and vandalism.

RS232 Serial Interface

With the addition of a RS232 serial interface, the EX2000 series has expanded areas of use and has eased the hassle of upgrades and service. This standard 9-pin serial connector allows the EX2000 to interface with software applications as well as ACDI's Bootloader program. The Bootloader program allows users to reload the software on to the unit.

Programming your EX Series Vending System

Overview

Your **EX2000 Series** Vending System provides numerous levels of customization. **With the Bypass key or Operators Key in the “On” position and an Active Supervisor Pin Number**, the following features are programmable within the Service Mode:

- *Setting the Price per Copy*
- *Amount of Time* each welcome screen appears on the display
- *Text* for 2 of the 4 welcome screens are editable on the display
- *Supervisor and User Pin Numbers* (Default Supervisor Pin is 73784230)
- *Delay Settings*
- *Assigning Supervisor and User PIN Numbers*

Assigning Supervisor and User PIN Numbers

Pin Menu

100 User and 25 Supervisor PIN numbers are programmable within the **EX2000 Series** vending system. This feature provides multiple users' access to “Staff Copies” and gives control and accountability to the Owner by recording the number of copies per User or Supervisor. Therefore, you have vending and account management all in one machine. To view PIN usage, refer to the METERS MENU.

Adding User PIN Numbers

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “PIN Menu”
5. Press *ENTER*, display will read “User PIN”
6. Press *ENTER*, display will read “Add User”
7. Press *ENTER*, display will read “Begin Entering PIN”
8. Enter up to 6-digit PIN that you want to add. **Note: Longer pin numbers are more secure.**
9. Press *ENTER*, display quickly flashes “Adding PIN”, “PIN Added” then defaults to “Begin Entering PIN”
10. Repeat steps 8 and 9 until all desired PINs are added.
11. Press *EXIT*, display will read “Add User”
12. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode.

Clearing User PIN Numbers

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “PIN Menu”
5. Press *ENTER*, display will read “User PIN”
6. Press *ENTER*, display will read “Add User”
7. Press *FWD* until display reads “Clear PIN”
8. Press *ENTER*, display will read “Begin Entering PIN”
9. Enter up to 6-digit PIN that you want to delete and press *ENTER*
10. Display will read, “Are you sure?”
11. Press *ENTER*, display quickly flashes “Deleting PIN” and defaults to “PIN Deleted”
12. Press *EXIT*, display will read “Clear PIN” and follow steps 7-10 to delete additional PINs
13. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode .

Adding Supervisor PIN Numbers

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “PIN Menu”
5. Press *ENTER*, display will read “User PIN”
6. Press *FWD* until display reads “Supervisor PIN”
7. Press *ENTER*, display will read “Add Supervisor”
8. Press *ENTER*, display will read “Begin Entering PIN”
9. Enter up to 6-digit PIN that you want to add. **Note: Longer pin numbers are more secure.**
10. Press *ENTER*, display quickly flashes “Adding PIN”, “PIN Added” then defaults to “Begin Entering PIN”
11. Press *EXIT*, display will read “Add Supervisor” and follow steps 7-8 to add additional PINs
12. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode.

Clearing Supervisor PIN Numbers

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “PIN Menu”
5. Press *ENTER*, display will read “User PIN”
6. Press *FWD* until display reads “Supervisor PIN”
7. Press *ENTER*, display will read “Add Supervisor ”
8. Press *FWD* until display reads “Clear PIN”
9. Press *ENTER*, display will read “Begin Entering PIN”
10. Enter the 8-digit PIN that you want to delete and press *ENTER*
11. Display will read, “Are you sure?”
12. Press *ENTER*, display quickly flashes “Deleting PIN” and defaults to “PIN Deleted”
13. Press *EXIT*, display will read “Clear PIN” and follow steps 9-12 to delete additional PINs
14. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode.

Adjusting the Welcome Screens

Edit Text on the Display

You can adjust the text that is displayed on Screens 1 through Screens 12 by following the steps below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, then screen will display “Cash Settings”
6. Press *FWD* until display reads “Edit Welcome Screens”
7. Press *ENTER*, then screen will display “Edit Screen 1”
8. Press *FWD* until display reads “Edit Screen 2” or the number of screen desired to be edited.
9. Press *ENTER*, then screen will read “Edit Text”
10. Press *ENTER*, then screen will display “Color \$0.50”
11. Press *ENTER*, then screen will display a line under the first character on the screen “Color \$0.50”
12. Pressing *FWD*, the character currently underlined will change to the next valid character “Dolor \$0.50”
13. Pressing *BACK*, the character currently underlined will change to the prior valid character “Color \$0.50”
14. Pressing 6 will switch the underlined cursor to the right

15. Pressing 4 will switch the underlined cursor to the left
16. Pressing 8 will move the underlined cursor down
17. Pressing 2 will move the underlined cursor up
18. Pressing 0 will delete the underlined character.
19. Pressing 5 will clear the text from the whole screen.
20. Pressing *FWD* and *BACK* to edit the character.
21. Pressing 7 and 9 to edit the character from lower case to upper case.
22. Press *ENTER* to disable editing.
23. Press *EXIT*, then screen will display “Edit Text”
24. Press *EXIT*, then screen will display “Edit Screen 2”
25. Press *FWD* to edit other screens and follow steps 9-22

Note: Welcome Screens 1 thru 8 are automatically set to price lines 1 thru 8 respectively. Therefore all but the lower right 7 characters are editable.

Edit Time Each Screen is Displayed

You can adjust the time that each welcome screen is displayed by following the steps below:

1. Enter default Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, then screen will display “Cash Settings”
6. Press *FWD* until display reads “Edit Welcome Screens”
7. Press *ENTER*, then screen will display “Edit Screen 1”
8. Press *ENTER*, then screen will read “Edit Text”
9. Press *FWD* until the display reads “Edit Time”
10. Press *ENTER*, then screen will display “Time 2” (**Default is 2 sec.**)
11. Press *ENTER*, the cursor will blink
12. Pressing *FWD* will increase the value.
13. Pressing *BACK* will decrease the value.
14. Press *ENTER* to lock in value.
15. Press *EXIT*, then screen will display “Edit Time”
16. Press *EXIT*, then screen will display “Edit Screen 1”
17. Press *FWD* to edit Welcome Screen 2 and follow steps 8-16

Meters Menu - Accounting

The **EX2000 Series** allows you to track revenue by reading and recording meter amounts shown on the display or printing a hard copy to a portable *SKT40 dot Matrix Printer*.

The meter readings show the total number of copies made and paid for, as well as the number of “Bypass” copies. These meters are resettable, preventing you from having to dictate the current copy count.

Our unit also offers a persistent total clicks meter. This number is non-resettable and will continue to increment for the life of the product. This meter is useful as an added form of accountability to the copier and coin-op resettable counters.

View Meters Menu

To View Meters Menu, Enter Meter Menu by following these commands:

1. Enter default Supervisor Pin while Operators Key is in the “ON” position – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Meters Menu”
5. Press *ENTER*, display will read “Read Meters”
6. Press *FWD* to scroll through options:
 - a. Read Meters
 - i. Cash Customers – Displays paid copies per copy type or price line
 - ii. User – Displays number of copies made per PIN Account
 - iii. Supervisor – Displays number of copies made per SUPERVISOR Account
 - iv. Total – Displays total number of *metered* copies
 - v. Persistent Total – Displays total number of *metered* copies for life of product.(NONRESETTABLE)
 - b. Print Meters
 - c. Clear Meters

Reading Meters (See Illustration 1.01)

1. Follow steps 1-5 from “View Meters Menu” above.
2. Press *ENTER*, display will read “Read Groups”
3. Press *ENTER*, display will read “Read Cash Customers”
4. Press *ENTER*, display will read “Cash Customers Price1 #”

Programming your EX Series Vending System

5. Press *FWD* to scroll through the options:
 - a. Cash Customers Price 1 #
 - b. Cash Customers Price 2 #
 - c. Cash Customers Price 3 #
 - d. Cash Customers Price 4 #
 - e. Cash Customers Price 5 #
 - f. Cash Customers Price 6 #
 - g. Cash Customers Price 7 #
 - h. Cash Customers Price 8 #
 - i. Cash Customers Total #
6. Press *EXIT* 2 times until display reads “Read Groups”
7. Press *FWD*, display will read “Read User”
8. Press *ENTER*, the first User Account will appear:
 - a. 123456 #
9. Press *FWD* to scroll through each User Account
10. Press *EXIT*, display will read “Read Groups”
11. Press *FWD* until display reads “Read Supervisor”
12. Press *ENTER*, the first Supervisor Account will appear:
 - a. 73784230 (Default Supervisor PIN)
13. Press *FWD* to scroll through each Supervisor Account
14. Press *EXIT*, display will read “Read Groups”
15. Press *FWD* until display reads “Read Total”
16. Press *ENTER*, display will read “Total #”

Printing Meters (See Illustration 1.01)

To print, you must have an *ACDI certified Serial Printer* with a printer cable.

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Meters Menu”
5. Press *ENTER*, display will read “Read Meters”
6. Press *FWD*, display will read “Print Meters”
7. Press *ENTER*, display will read “Press Enter To Print”
8. Press *ENTER* to print, display will read “Printing” while in process and default back to “Press Enter To Print”
9. Press *EXIT*, display will read “Read Meters”

Group Meters		Price8 Meter:	6
		Price8 Cost:	\$ 1.20
Cash Customers		Total Meters:	50
Price1 Meter:	0	Cash Value:	\$ 27.80
Price1 Cost:	\$ 0.10		
Price2 Meter:	1	Supervisors	
Price2 Cost:	\$ 0.50	Price1 Meter:	7
Price3 Meter:	0	Price1 Cost:	\$ 0.10
Price3 Cost:	\$ 0.20	Price2 Meter:	6
Price4 Meter:	2	Price2 Cost:	\$ 0.50
Price4 Cost:	\$ 0.20	Price3 Meter:	7
Price5 Meter:	1	Price3 Cost:	\$ 0.20
Price5 Cost:	\$ 0.40	Price4 Meter:	3
Price6 Meter:	0	Price4 Cost:	\$ 0.20
Price6 Cost:	\$ 0.60	Price5 Meter:	5
Price7 Meter:	0	Price5 Cost:	\$ 0.40
Price7 Cost:	\$ 1.00	Price6 Meter:	3
Price8 Meter:	0	Price6 Cost:	\$ 0.60
Price8 Cost:	\$ 1.20	Price7 Meter:	3
		Price7 Cost:	\$ 1.00
Total Meters:	4	Price8 Meter:	12
Cash Value:	\$ 1.30	Price8 Cost:	\$ 1.20
Users		Total Meters:	46
Price1 Meter:	5	Cash Value:	\$ 26.90
Price1 Cost:	\$ 0.10		
Price2 Meter:	13	Total Pages Metered:	100
Price2 Cost:	\$ 0.50	Total Cash Value:	\$ 56.00
Price3 Meter:	4		
Price3 Cost:	\$ 0.20		
Price4 Meter:	5		
Price4 Cost:	\$ 0.20		
Price5 Meter:	2		
Price5 Cost:	\$ 0.40		
Price6 Meter:	10		
Price6 Cost:	\$ 0.60		
Price7 Meter:	5		
Price7 Cost:	\$ 1.00		

Programming your EX Series Vending System

Supervisor PIN Account Meters

ACD00000 - - No Usage

73784230

Price1 Meter:	7
Price2 Meter:	6
Price3 Meter:	7
Price4 Meter:	3
Price5 Meter:	5
Price6 Meter:	3
Price7 Meter:	3
Price8 Meter:	12
Total Meters	46
Cash Value:	\$ 26.90

User PIN
Account Meters

123456

Price1 Meter:	5
Price2 Meter:	13
Price3 Meter:	4
Price4 Meter:	5
Price5 Meter:	2
Price6 Meter:	10
Price7 Meter:	5
Price8 Meter:	6
Total Meters:	50
Cash Value:	\$ 27.80

Clearing Meters in the Meters Menu

Clearing Meters resets the copy counts for Cash Customers, USERS and SUPERVIORS. It is useful to clear meters after you have reconciled copies-to-cash and have printed the records on the *SKT-40 Dot Matrix Printer*, enabling a good starting point for the next recording period.

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Meters Menu”
5. Press *ENTER*, display will reads “Read Meters”
6. Press *FWD* until display reads “Clear Meters”
7. Press *ENTER* 2 time to select Clear Meters, display will read “Press Enter To Clear”
8. Press *ENTER* to clear, display will read, “Are you sure?”
9. Press *ENTER* to select continue clearing, display will read “Clearing” while in process and default back to “Meters Clear”
10. Press *EXIT* 2 times followed by *EJECT* to exit out of the Service Mode and to return to the default Idle Screen

Cash Reconciliation Menu

Print Reconcile Reports

Print Reconciliation Report by attaching an *SKT40-Dot Matrix Printer* to the EX2000 series vending system and follow the instructions below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Reconcile Menu”
5. Press *ENTER*, display will read “Print Reports”
6. Press *ENTER*, display will read “Press Enter to Print”
7. Press *ENTER* to print, display will read “Printing” while in process and default back to “Print Report”

(Please refer to illustration 1.02)

Cash Reconciliation Report	

Nickels	\$ 0.20
Dimes	\$ 0.90
Quarters	\$ 0.75
Dollar Coin	\$ 0.00
Ones	\$ 4.00
Fives	\$ 20.00
Tens	\$ 40.00
Twenties	\$ 80.00
Cash Box	\$ 325.55
Total:	\$ 471.40
Coin Tubes:	\$ 1.85
Cash Box:	\$ 325.55
Bill Stacker:	\$ 144.00

Removing Cash

With the door of the EX2000 open, use the key to open the cash box. Remove the coins and place cash box back into the EX2000 cabinet. Next, remove the Bill Stacker and extract the bills.

Resetting Cash Box and Bill Stacker Totals

Resetting Cash Box and Bill Stacker totals provides a starting point without having to add or subtract beginning totals from one period to the next. We advise you reset the totals after each reconciliation period. Once the change and bills are removed, and reconciled, reset the Cash Box and Bill Stacker amounts to \$0.00 by following these instructions:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Reconcile Menu”
5. Press *ENTER*, display will read “Print Report”
6. Press *FWD* until display reads “Clear Totals”
7. Press *ENTER*, display will read “Clear Cash Box”
8. Press *ENTER*, display will read “Confirm Clear? Cash Box”

Programming your EX Series Vending System

9. Press *ENTER* to clear cash box, screen returns to “Clear Totals”
10. Press *ENTER*, display will read “Clear Cash Box”
11. Press *FWD* until display reads “Clear Bill Stacker”
12. Press *ENTER*, display will read “Confirm Clear? Bill Stacker”
13. Press *ENTER* to clear bill stacker, screen returns to “Clear Totals”
14. Press *EXIT* followed by *EJECT* to return to the main Idle Screen.

After printing the Meter Reports and the Cash Reconciliation Report, compare the physical cash with the total from the Reconciliation Report.

Reconciliation Report Total = (Total Physical Cash – Initial Balance)
***Always document your beginning cash balance.

The “Cash Reconciliation Report” shows the total amount of money stored inside the EX2000. (See Illustration 1.02)

Editing and Reading Cash Settings

The **EX2000 Series** vending systems allows you to view and edit the amount of change residing in the coin tubes. This is useful when the coins are loaded into the tubes from the back of the unit and not in the **MANUAL FILL MODE**. If there is not enough change in the tubes, the Display will read “Please Use Exact Change”. If there are coins in the tubes and the display reads “Please Use Exact Change”, by going to Cash Settings, you can check to see how much money in Nickels, Dimes, and Quarters the EX2000 has recorded. Moreover, if the amount in the systems differs with the amount in the tubes, you can change the value in the Cash Settings Menu by following these instructions:

Editing Cash Settings

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *ENTER*, display will read “Nickels \$###.##”
7. Press *ENTER* to edit the value and a cursor will appear with a value of \$000.00 will appear
8. Enter the dollar amount in Nickels currently in the coin tubes and press *ENTER* to save this value
9. Press *FWD*, display will read “Dimes \$###.##”
10. Repeat steps 7-8 to modify the current balance in Dimes
11. Press *FWD*, display will read “Quarters \$###.##”
12. Repeat steps 7-8 to modify the current balance in Quarters
13. Press *FWD*, display will read “Dollar Coins \$###.##”
14. Repeat steps 7-8 to modify the current balance in Dollar Coins
(Standard Changers do NOT store Dollar Coins, they are deposited directly to the Cash Box)

View Cash Settings

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *ENTER*, display will read “Nickels \$###.##”
7. Press *FWD* to scroll through the following Cash Settings:
 - a. Nickels (editable)
 - b. Dimes (editable)
 - c. Quarters (editable)
 - d. Dollar Coin (editable)
 - e. Cash Box
 - f. Ones
 - g. Fives
 - h. Tens
 - i. Twenties

Records Menu

Print Records Report

Print Security Records Report by attaching an *Serial Receipt Printer* to the EX2000 series vending system and follow the instructions below:

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD*, until display reads “Records Menu”
7. Press *ENTER*, display will read “Print Pin Records”
8. Press *ENTER* to print, display will read “Printing” while in process and default back to “Print Pin Records”

Enabling or Disabling the Keypad

For security reasons, the **EX2000 Series** vending systems provides the ability to activate or deactivate the keypad. It is ENABLED in default mode, allowing programmed User and Supervisor PIN numbers access to the copier. To disable the Keypad, change the setting to OFF. Therefore, without the Operators' Key, the Keypad will not respond to key entries and will require the Operators' Key to make copies or enter the Service Mode.

To change the Enable Keypad Setting, follow the steps below.

Turning Keypad ON or OFF

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Other Settings”
7. Press *FWD* until display reads “Keypad Enabled”
8. Press *ENTER*, will toggle between Enabled and Disabled
9. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode and return to the main Idle Screen

Enabling the Bypass Key

When the Bypass Key is ON, a PIN is not required for copying; **when Key Bypass is enabled copies being made are metered to the Supercard account.** ACDI advises use of supervisor or user pin accounts instead of key bypass for security reasons. To change the Bypass Key Setting, follow the steps below:

Turning the Bypass Key ON or OFF

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Other Settings”
7. Press *FWD* until display reads “Key Bypass Enabled” (Current setting will be displayed)
8. Press *ENTER* to toggle between Enabled and Disabled
9. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode.

Enabling Online Accounts

The EX2000 series coin-op has the ability to interface with several software options and provide online pin user accounts for vending of copies.

Turning the Online Accounts ON or OFF

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Other Settings”
7. Press *FWD* until display reads “Online Accounts Enabled” (Current setting will be displayed)
8. Press *ENTER* to toggle between Enabled and Disabled
9. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode.

Enabling Hidden Pins Mode

The EX2000 series coin-op has the ability to hide the display of pins as entered on the top keypad. This added security feature allows for discrete entering of access pins in public venues.

Turning the Hidden Pins Mode ON or OFF

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Other Settings”
7. Press *FWD* until display reads “Hidden Pins Mode Enabled” (Current setting will be displayed)
8. Press *ENTER* to toggle between Enabled and Disabled
9. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode and return to the main Idle Screen

Minimum Credit Card Purchase

The EX2000 series coin-op when equipped with a credit card module has the ability to set a minimum purchase price. This setting can ensure that small transactions do not occur keeping banking fees to a minimum.

Setting the Minimum Credit Vend

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Other Settings”
7. Press *FWD* until display reads “Min Credit Vend \$00.00”.
8. Enter the value desired then press *ENTER*.
9. Press *EXIT* 3 times followed by *EJECT* to exit the Service Mode and return to the main Idle Screen

Delay Settings

Disable Delay

This setting determines how long the *EX2000* waits before disabling the copier. Useful when last vend or partial pages are an issue.

1. Enter Supervisor Pin – 73784230
2. Press *FWD* until display reads “Service Mode”
3. Press *ENTER* to select “Service Mode”
4. Press *FWD* until display reads “Setup Menu”
5. Press *ENTER*, display will read “Cash Settings”
6. Press *FWD* until display reads “Delay Menu”
7. Press *ENTER*, display will read “Disable Delay 25 mSec” (Default Disable Delay is 25 mSec)
8. Press *ENTER* to edit Disable Delay and a flashing cursor will appear
9. Press *FWD* to increase the delay or press *BACK* to decrease the delay
10. Press *ENTER* to save your new delay
11. Press *EXIT*, display will read “Delay Menu”

Blind Time

This setting determines how long the *EX2000* waits before accepting another copy charge pulse.

Useful when more than one charge is made per copy, this setting can correct the problem. By extending the Blind Time, the *EX2000* can ignore additional pulses.

1. Follow steps 1 thru 7 from “Disable Delay” above
2. Press *FWD* until display reads “Blind time 250 mSec” (Default Blind Time is 250 mSec)
3. Press *ENTER* to edit Blind Time and a flashing cursor will appear
4. Press *FWD* to increase Blind Time or press *BACK* to decrease blind time
5. Press *ENTER* to save your new Blind Time
6. Press *EXIT*, display will read “Delay Menu”

Card Time Out

This setting determines how long a card will remain in the reader without activity and how long Online Accounts enable the copier before disabling it due to inactivity.

1. Follow steps 1 thru 7 from “Disable Delay” above
2. Press *FWD* until display reads “Card Time Out 00:06:00” (Default Blind Time is 6 min.)
3. Press *ENTER* to edit Card Time Out and a flashing cursor will appear
4. Press *FWD* to increase Card Time Out or press *BACK* to decrease Card Time Out
5. Press *ENTER* to save your new Card Time Out
6. Press *EXIT*, display will read “Delay Menu”

Pin Time Out

This setting determines the amount of time the *EX2000* displays a balance of “\$0.00” before returning to the Idle Menu.

1. Follow steps 1 thru 6 from “Disable Delay” above
2. Press *ENTER*, display will read “Disable Delay”
3. Press *FWD* until display reads “Pin Time Out 00:05:00” (Default Blind Time is 5 min.)
4. Press *ENTER* to edit Pin Time Out and a flashing cursor will appear
5. Press *FWD* to increase Pin Time Out or press *BACK* to decrease Pin Time Out
6. Press *ENTER* to save your new Pin Time Out
7. Press *EXIT*, display will read “Delay Menu”

Force Vend

This setting determines whether a copy must be made prior to ejecting change. “**Yes**” means that Force Vend is turned on and therefore a copy must be made prior to ejecting change. “**No**” means that Force Vend is turned off and therefore change can be given without making a copy.

***Note: DEFAULT SETTING = “NO”. Turning Force Vend Off allows the *EX2000 Series* Vending System with \$bills to become a change machine and could cause coin levels to remain low.

Card Reader Service

The EX2000BC, EX2000SBC, and EX2000NBC are equipped with the Copymate Express magnetic card system. There are unique settings and card programming modes available only in the card reader service menu. The following pages will walk you through functions specific to the card reader service menu.

Note: The functions differently when in Card Reader Service Mode.

Encode Cards - Cash

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen should read “Encode Cards?”
4. Press *FWD* screen will read “G1 Code: 9” ‘9 is default (your actual group 1 code will display)
5. *If group 2 or group 3 cards are needed Press ENTER until G2 or G3 appears.*
6. Press *FWD* screen will read “Encode Cash?”
7. Press *FWD* screen will read “Balance:\$.000”
8. Press *FWD* to increase value to encode by .01
9. Press 6 to increase value to encode by .10
10. Press 7 to increase value to encode by 1.00
11. Press *BACK* to decrease value to encode by .01
12. Press 4 to decrease value to encode by .10
13. Press 1 to decrease value to encode by 1.00
14. When you have the card at the desired value, Press *ENTER*.
15. Wait for card reader to prompt “To Encode, Insert Card”
16. Insert card to be encode.
17. You may continue to encode as many cards as you want at this value.
18. Press *FWD* will leave the Service Mode.

Encode Cards - Units

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *FWD* screen will read “G1 Code: 9” ‘9 is default (your actual group 1 code will display)
5. *If group 2 or group 3 cards are needed Press ENTER until G2 or G3 appears.*
6. Press *FWD* screen will read “Encode Cash?”
7. Press *ENTER* screen will read “Encode Units?”

8. Press *FWD* screen will read “Balance: 0”
9. Press *FWD* to increase value to encode by 1 unit
10. Press *6* to increase value to encode by 10 units
11. Press *7* to increase value to encode by 100 units
12. Press *BACK* to decrease value to encode by 1 unit
13. Press *4* to decrease value to encode by 10 units
14. Press *1* to decrease value to encode by 100 units
15. When you have the card at the desired value, Press *ENTER*.
16. Wait for card reader to prompt “To Encode, Insert Card”
17. Insert card to be encode.
18. You may continue to encode as many cards as you want at this value.
19. Press *FWD* will leave the Service Mode.

Card Max

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “Crd Max:\$.000” or current max.
5. Note you will step through several menus.
6. Press *FWD* to increase value by .01
7. Press *6* to increase value by .10
8. Press *7* to increase value by 1.00
9. Press *BACK* to decrease value by .01
10. Press *4* to decrease value by .10
11. Press *1* to decrease value by 1.00
12. Press *ENTER* until screen reads “Exit Use Bypass”
13. Press *BACK* to leave the Service Mode.

Card Time Out

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “Crd Timeout: \$.000”.
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1 minute
7. Press *6* to increase value by 10 minute
8. Press *7* to increase value by 100 minute
9. Press *BACK* to decrease value by 1 minute
10. Press *4* to decrease value by 10 minute
11. Press *1* to decrease value by 100 minute
12. Press *ENTER* until screen reads “Exit Use Bypass”
13. Press *BACK* to leave the Service Mode.

Group Code 1 – Setting is preset and should only be changed if instructed.

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “G1 Code: 9” or current group 1 code.
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1
7. Press *6* to increase value by 10
8. Press *BACK* to decrease value by 1
9. Press *4* to decrease value by 10
10. Press *ENTER* until screen reads “Exit Use Bypass”
11. Press *BACK* to leave the Service Mode.

Group Code 2 – Setting is preset and should only be changed if instructed.

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “G2 Code: 2” or current group 1 code.
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1
7. Press *6* to increase value by 10
8. Press *BACK* to decrease value by 1
9. Press *4* to decrease value by 10
10. Press *ENTER* until screen reads “Exit Use Bypass”
11. Press *BACK* to leave the Service Mode.

Group Code 3 – Setting is preset and should only be changed if instructed.

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “G3 Code: 3” or current group 1 code
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1
7. Press *6* to increase value by 10
8. Press *BACK* to decrease value by 1
9. Press *4* to decrease value by 10
10. Press *ENTER* until screen reads “Exit Use Bypass”
11. Press *BACK* to leave the Service Mode.

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

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “G3 Code: 3” or current group 1 code.
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1
7. Press *6* to increase value by 10
8. Press *BACK* to decrease value by 1
9. Press *4* to decrease value by 10
10. Press *ENTER* until unit exits the Service Mode

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

1. Enter default Supervisor Pin– 73784230.
2. Press *FWD* until display reads “Card Reader Service”
3. Press *ENTER* to screen will read “Encode Cards?”
4. Press *ENTER* until screen reads “G3 Code: 3” or current group 1 code.
5. Note you will step through several menus.
6. Press *FWD* to increase value by 1
7. Press *6* to increase value by 10
8. Press *BACK* to decrease value by 1
9. Press *4* to decrease value by 10
10. Press *ENTER* until unit exits the Service Mode.

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