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## Introduction

The ADD-4 Photocopy Expense Recovery System is the latest in a line of photocopy expense recovery systems from Transaction Recovery Systems, Inc. targeting the needs of small to mid-sized firms.

The ADD-4 controls access to the photocopier by requiring that each user enter a client/job/etc. and/or user code prior to using the photocopier. All copies made are recorded in dual battery-backed RAM memory and include a time and date stamp as well as the client/job/etc. input from the user.

Data is retrieved from the ADD-4 unit(s) using the ADD4PC Data Collection Software. The ADD4PC Data Collection Program is a menu driven data acquisition program for collecting data from the ADD-4 unit(s) to generate hard-copy billing and management reports and/or to reformat ADD-4 data for interfacing with Time & Billing packages. Data on individual clients can also be viewed directly from the ADD-4 display should the need arise.

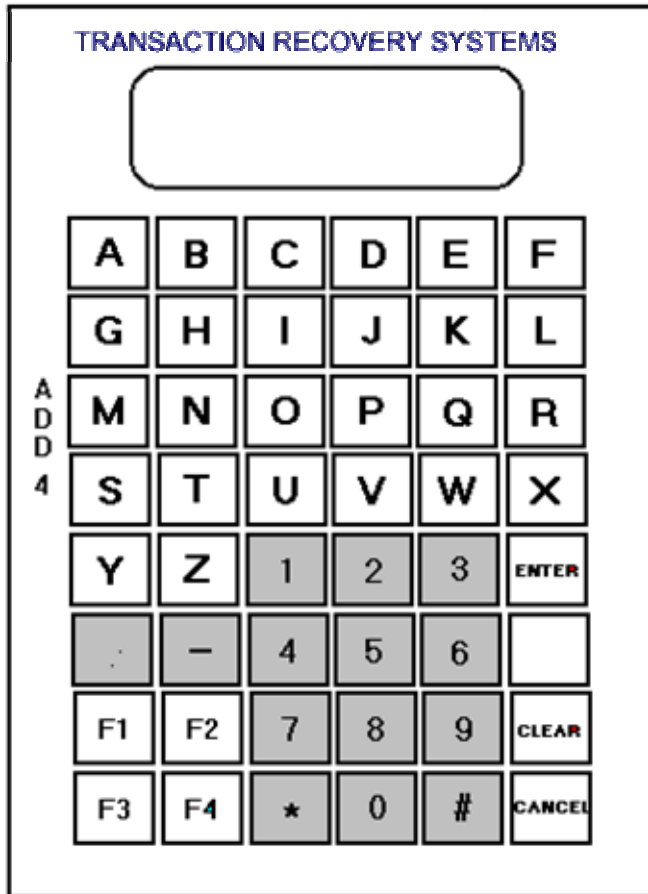
Other "miscellaneous" expenses such as postage, facsimile, courier, etc. can also be entered into the ADD-4 using special function keys.

The ADD-4 Photocopy Expense Recovery System can be configured as a single unit, wired to your PC's serial port or several units can be linked using an RJ-11 serial port switchbox. For those who do not wish to have the system hard-wired, the ADD-4 unit(s) can be removed from the photocopier and plugged directly into the serial port of a P.C. on an as-needed basis.

The ADD-4 is compatible with plain-paper and digital copiers.

The ADD-4 has been packaged to withstand normal use and conditions typical of office environments. Treated with the care appropriate to any computer device it will provide you with continuous reliable service.

## ADD-4 Keyboard



The ADD-4 is equipped with a full alphanumeric keyboard, including special characters dash (-), pound (#) and asterisks (\*). Numeric keys 0 through 9 are arranged like a standard telephone keypad

Each keyboard has 4 control keys. These are the red keys labeled ENTER, Back Arrow, CLEAR and CANCEL.

**ENTER key:** The ENTER key is used to enter account/user/etc. information in the normal operating mode **or** to respond to command prompts when in the key-operator mode. This key functions in much the same manner as the ENTER key on your computer.

**Back/Hold key (Back Arrow) key.** Please note that the Hold feature is disabled once copying resumes. Therefore, if Hold is used and then a copy is made, you must touch the back arrow key again if another extended "time-out" period is required

**CLEAR key:** The CLEAR key to clears an entire line of entry from the display. New data can then be entered.

**CANCEL key:** In the normal operating mode the CANCEL key returns the ADD-4 to the "idle" mode, showing the time and date on the display. The CANCEL key should always be touched when the user has completed a copy run. In the Key-operator mode, this key is used to cancel or complete a command or subcommand operation.

There are also 4 special function keys used to enter "miscellaneous" expenses, such as fax, postage, courier, etc. as defined in "YOUR ADD-4's CONFIGURATION. These are the blue keys labeled F1, F2, F3, and F4. These keys are typically defined as:

- F1 = Postage
- F2 = Courier
- F3 = Miscellaneous
- F4 = Facsimile

**The F1 through F4 keys:** To enter expenses with these keys, touch the applicable key **before** touching the ENTER key. The display will then prompt for the account/job/etc. code.

Enter the appropriate data and touch the ENTER key. The display will prompt for the user code. Enter the appropriate data and touch the ENTER key. The client code is displayed on the top line of the display and the F1 through F4 description is displayed on the bottom line of the display.

**The F1 key:** The F1 key is used to enter postage expenses. You will be prompted first for the number of pieces. Enter the number of pieces, and then enter the cost per piece. All tabulation for postage expenses are performed by the ADD4PC Data Collection Program.

**The F2 and F3 keys:** The F2 and F3 keys are used to enter courier and "miscellaneous" expenses. Enter the amount of the transaction, in cents, and touch ENTER. For example \$4.50 is entered as 450.

**The F4 key:** The F4 key is assigned the function of recording facsimile expenses. Instead of prompting for the cost of the transaction, you enter the number of pages after entering the client and user codes as outlined above. The pricing of facsimile expenses is performed by the ADD4PC Data Collection Program in the SETUP-Maintain System Tables option.

Note: The blue special function keys F1 through F3 can be redefined. Please contact your Transaction Recording Systems, Inc. Representative to discuss this option.

## **Visual and Audio Feedback**

The ADD-4 lets you know what is happening at all times by providing visual and audio feedback with each keystroke via a 2 line by 16 character display and audio signal (beep). Typically, the top line of the display prompts the user or Key-operator and the bottom line shows the information entered by the user or Key-Operator. Audio feedback consists of one of two distinct signals (beeps). A short single beep indicates the keyed input is accepted by the ADD-4; whereas three consecutive beeps indicate an error in the data entry process.

## Scrolling Feature

To "scroll" through the account database of a validating ADD-4 unit:

Touch the ENTER key as usual.

The ADD-4 will prompt for the account code (or any other Field 1 description).

Enter the first character of the account code and touch the # key.

**(Note:** The more characters entered, the more concise the starting point of the scroll process. For example, entering SMI will get to the SMITH code faster than entering SM or just S). Continue pressing the # key to scroll through the database until you reach the desired client code.

Touch the ENTER key. The ADD-4 now prompts for the Field 2 description (typically a user code).

Enter the user code, and then ENTER.

This feature is only available when the Field 1 Validation Option is active. Refer to Key-Operator Command 1 - "Activating Validation Option on Fields 1 and/or 2".

## Installation

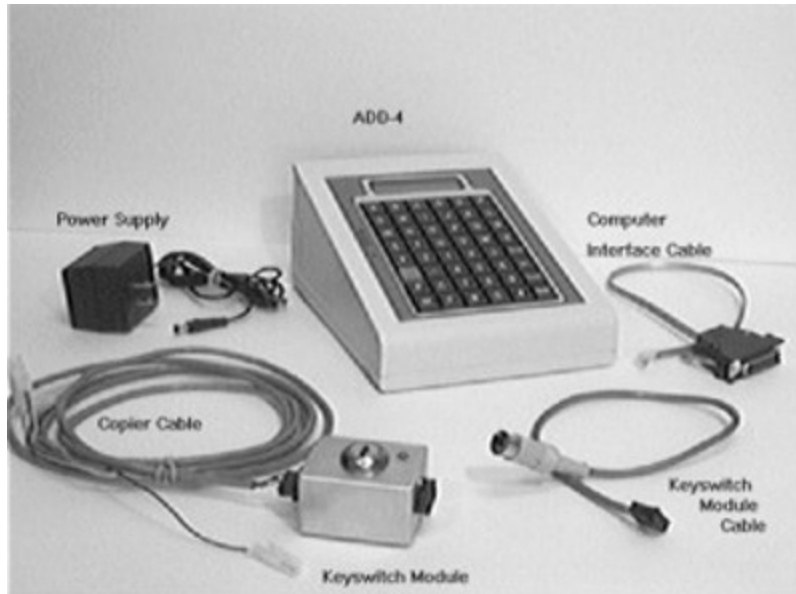


Figure 1

Secure a suitable location for the ADD-4 unit. The ADD-4 can be mounted on the copier top or a table nearby. Refer to Figure 1 for the component terminology.

Plug the power supply into the applicable connector on the back of the ADD-4 and into an available A/C power outlet. The ADD-4 will display the time and date.

### Keyswitch Installation

Attach the ADD-4 System Keyswitch Module Cable to the side of the Keyswitch with the copy pulse LED.

Attach the copier cable to the side of the Keyswitch Module *opposite* the copy pulse LED.

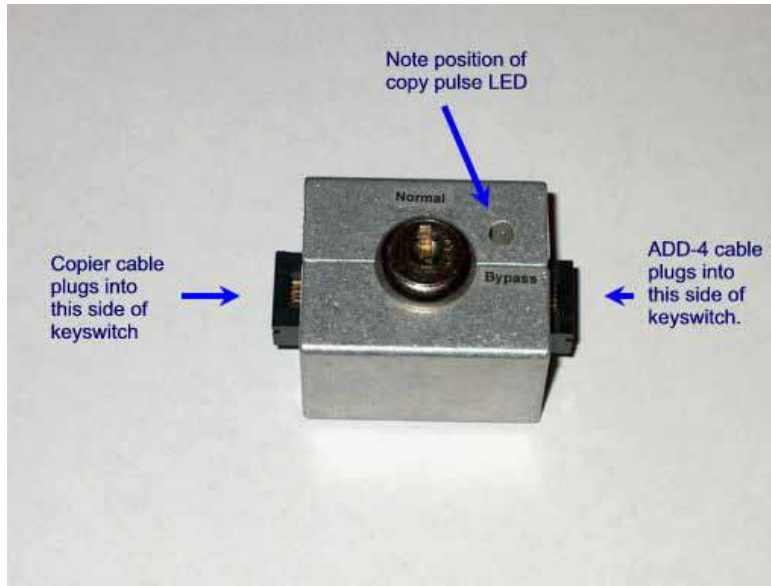


Figure 2

When plugging the cables into the Keyswitch Module, note the orientation of the notch on the cable ends per Figure 3. Incorrectly connected cables may result in bent pins and equipment malfunction.

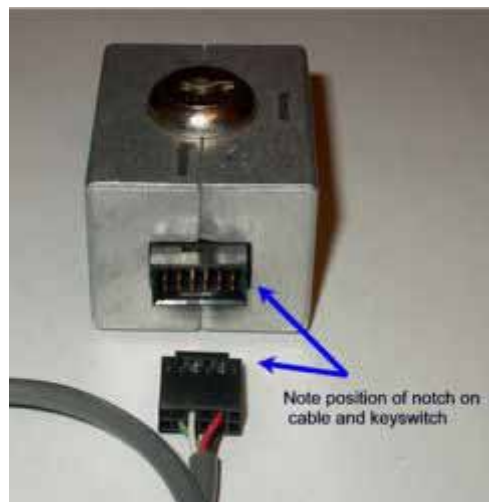


Figure 3

Plug the keyswitch module cable into the keyswitch block on the side *with* the copy pulse light. Refer to Figure 2. Plug the other end of the keyswitch module cable into the appropriate connector on the back of the ADD-4. Refer to Figure 4.



Figure 4

Plug the other end of the copier cable into the external control device connector on the copier. This connector will differ depending on the copier model.

Copiers will normally have a "dummy plug" installed in the external control device connector. Remove the dummy plug and attached the copier cable.

In lieu of the "dummy plug", the copier may have a "loop" of wire on the backside of the external control device connector. If this is the case, the "loop" of wire must be cut. Furthermore, some copiers will require program codes to activate the feature that recognizes an external counter.

Once the copier cable is installed, the copier should be inoperable. The ADD-4 unit must now be accessed to operate the copier.

Refer to the ADD-4 Operational Test section to test the system.

## ADD-4 Operational Test

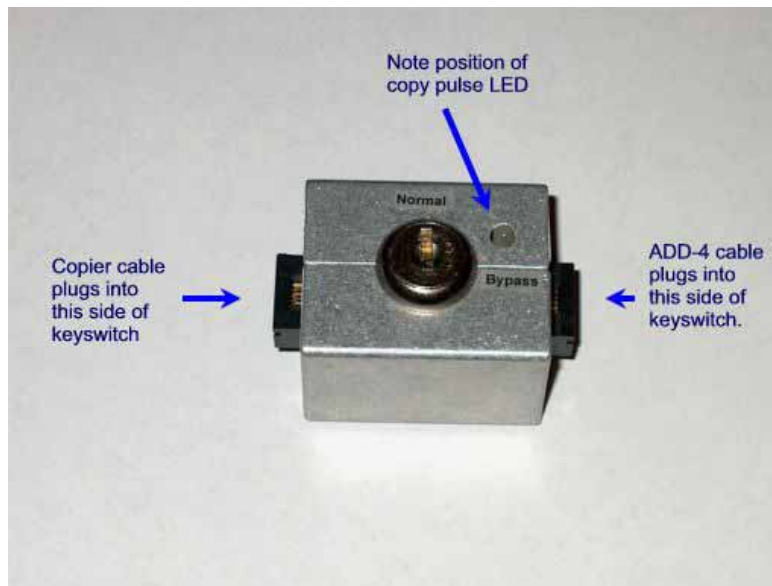


Figure 5

Refer to Figure 5 and insert the provided override key into the key switch box, turning it clockwise 90 degrees. The key is now in the override position. In this position, the copier should operate normally without having to first access the ADD-4 unit. If this is not the case, recheck all connections in the installation section.

Turn the key 90 degrees counterclockwise. The copier is now disabled and requires use of the ADD-4 to enable it.

There are 2 methods available to check that the ADD-4 is functioning properly. The first is the "normal" mode. With the time and date showing on the display of the ADD-4 (idle mode), touch the ENTER key. The display now prompts for an account code. Refer to the supplied Instruction Poster and enter an account code followed by the ENTER key. The display now prompts for a user entry. Enter a user code followed by the ENTER key. The copier should now be enabled and ready to make copies. Make a few copies and watch that the ADD-4 displays the correct number of copies made. If all is correct, touch the CANCEL key to return the ADD-4 to the idle mode.

Alternatively, the ADD-4 can be tested in the "service" mode. Touch the Key-Operator key (the unlabeled gray key located in row 6, column 1 of the keyboard). The display prompts for a Password. The default password is PASS. Touch the ENTER key. The display shows ENTER COMMAND. Touch the 8 key, followed by the ENTER key. The copier is now enabled. Make a few copies watching the display to be certain that all copies made are recorded.

If no problems are encountered with either (or both) test methods, the ADD-4 is operating properly.

# Operating Modes

## The "Normal Mode" - Day-to-day use of the ADD-4

The ADD-4 is ready for "normal" use when displaying the time and date prompt. This is also referred to as the "idle" state. To make copies, follow the steps below.

**Note:** This example is for a standard ADD-4 system using two input prompt screens. Refer to the Instruction Poster provided with your ADD-4 system for the actual configuration of your ADD-4 unit.

1) Touch the ENTER key. The display prompts for an "ACCOUNT CODE?"

Enter the Account Code (or any other Field 1 descriptive code) to which copies are to be recorded. The characters entered will be displayed on the second line of the display.

2) Touch the ENTER key. The display prompts for a "USER CODE?"

Enter the User Code (or any other Field 2 descriptive code) to which copies are to be recorded. The characters entered will be displayed on the second line of the display.

3) Touch the ENTER key. The display will show the ACCOUNT CODE above and the ADD-4 will enable the copier. Copying may now commence.

4) Touch the CANCEL key when the copy run is complete. A record of the copier transaction will be stored in the ADD-4's memory. The display will return to the time and date "idle" mode.

## Possible "Normal Mode" Error messages:

Users may receive the following error messages:

"Invalid Entry" if:

- the entered data does not match the configuration for that field.
- one tries to use the scroll feature without entering at least the minimum character set.

"Entry too long/Entry too short" if:

- the maximum number of characters allowable in a field has been exceeded, or the minimum allowable characters in a field have not been entered.

"Account does not exist" if:

- the ADD-4 is configured as a validating unit and the data entered is not in the ADD-4 validation table

## "Keyswitch Override Mode"

The override key switch is located on top of the keyswitch module. When the key is inserted and turned 90 degrees clockwise into the override position, the copier is enabled and can be used without the ADD-4. The override feature should only be used when the ADD-4 is removed to extract data or when the ADD-4 is being serviced. [Refer to Figure 2](#) to differentiate the normal and override positions.

## "Key-Operator Mode" and Command Codes

To enter the Command Code sequence, touch the blank white/gray key. Enter the password and touch the Enter key. The display shows ENTER COMMAND.

**Note:** To access a "Help" menu describing the function of each Key-Operator command, touch the unlabeled gray/white Key-Operator key followed by the "\*" (asterisk) key, then ENTER. Enter the number of the Key-Operator command in question and a brief description of the command is displayed. Touch the CANCEL key to display another Key-Operator command. To exit from the Help menu, touch the "\*" key at the ENTER COMMAND: prompt.

## ***Key-Operator Command 0 - Adding a Validation Code via the Keyboard***

This feature allows for entry of an additional validation code via the keyboard of the ADD-4. The option is limited to validating ADD-4 units only.

To temporarily add an Account to a validating ADD-4 unit via the keyboard, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "0", and then touch the Enter key.

Enter the Account Code when prompted.

The new validation code must be within the initial configuration limits for Field 1. Validation codes entered in this fashion will be unique to the validation table established through the ADD4PC Data Collection Program. If the new validation codes are to become permanent, make sure to add the codes to the ADD4PC Data Collection Program.

### ***Key-Operator Command 1 - Turning on/off the Account/User validation feature.***

To activate the Account/User validation table established and maintained at the P.C. in the ADD4PC Data Collection Program and sent to the ADD-4 unit, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "1", and then touch the Enter key. Respond "Y" for yes to activate the validation feature for Field 1. Enter "Y" for yes to the prompt "Are you sure?".

Enter "Y" for yes to activate the validation feature for Field 2. Enter "Y" for yes to the prompt "Are you sure?".

To turn off the validation feature, enter "N" for no when prompted.

## ***Key-Operator Command 2 - Clear last transaction.***

To delete the most recent copy run - perhaps incorrectly charged to the wrong account - touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "2", and then touch the Enter key. Respond "Y" for yes to the "Erase Last Copy" prompt. Touch the Enter key and enter "Y" for yes to the prompt "Are you sure?".

### ***Key-Operator Command 3 - Inquiring About Totals on an Account.***

To review all account charges on a particular Account via the ADD-4's display since the last data collection, touch the blank white/gray key. Enter the password and touch the Enter key. You may choose to retain or delete this Account's data after viewing it.

Enter "3", and then touch the Enter key. Respond "Y" for yes to the "Clear Totals on this Client?" prompt. Touch the Enter key and enter "Y" for yes to the prompt "Are you sure?".

Enter the Account Code to clear totals on after reviewing. Touch the Enter key. You may review all data for the selected Account, including special function keys data such as fax, postage, courier, etc. by touching the Cancel key.

### ***Key-Operator Command 4 - Changing the Baud Rate***

To change the baud rate on the ADD-4 unit, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "4", and then touch the Enter key. Enter 1200, 4800 or 9600 for the baud rate. Touch the Enter key.

Make sure that the baud rate set here matches the baud rate of the ADD4PC Data Collection Program for Windows.

## ***Key-Operator Command 5 - Checking the Number of Transactions in Memory.***

To check the number of transactions in the ADD-4 unit, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "5", and then touch the Enter key.

## ***Key-Operator Command 6 - Setting the Time and Date***

To change the Time and Date on the ADD-4 unit, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "6", and then touch the Enter key.

Enter the time as HHMM. For example: 1 PM is entered as 0100.

Enter "A" for AM or "P" for PM.

Enter the date as MMDDYYYY. For example: January 22, 2001 is entered as 01222001.

## ***Key-Operator Command 7 - ADD-4 Version Number***

To check the version number of the ADD-4 unit, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "7", and then touch the Enter key.

## ***Key-Operator Command 8 - Entering the Service Mode***

To enter the Service mode, touch the blank white/gray key. Enter the password and touch the Enter key.

Enter "8", and then touch the Enter key.

This mode allows Copier Service Technicians to override the time-out feature when servicing the copier.

## **ADD-4 Configurations**

Each ADD-4 unit can be uniquely configured with regard to the allowable data entry for Field 1 and Field 2 prompts (typically account & user respectively).

Up to 15 characters for Field 1 and up to 4 characters for Field 2.

ADD-4 units can also be configured to prompt for just one field of input.