The information in this document is for your use only and does not represent a commitment on the part of Equitrac Corporation. The provided information is subject to change without notice.

The software described in this manual is offered to you under a license or a non-disclosure agreement. It may not be copied or distributed outside of the said agreement. Copying software without permission is against the law.

The following are believed to be trademarks or registered trademarks of their respective corporations:

• Adobe, FrameMaker, PostScript: Adobe, Inc.
• Aficio, Ricoh: Ricoh
• Lanier: Lanier
• Savin, Gestetner: Savin Gestetner Inc.

This document was produced using Adobe FrameMaker 6.0 running on Microsoft Windows 2000 Professional Workstation and set using Adobe Myriad MM and ITC Garamond MM fonts.

This manual is Copyright © 1998-2003 by Equitrac Corporation. All rights reserved. Unauthorized reproduction is prohibited.
Table of Contents

1. Overview ........................................................................................................................................... 4
   1.1 User interface conventions ............................................................................................................... 5
   1.2 System requirements ....................................................................................................................... 5

2. Installing embedded components .................................................................................................... 6
   2.1 Preparing to install ......................................................................................................................... 6
   2.2 Component installation ................................................................................................................... 6
   2.3 Additional module configuration .................................................................................................... 9

3. Using Print & Copy Control .............................................................................................................. 13
   3.1 Opening an administrative session ............................................................................................... 13
   3.2 Opening a user session ................................................................................................................... 15

Appendix A: Hardware Support ............................................................................................................. 18
Appendix B: Firmware preparation (Aficio 3800 only) ......................................................................... 19
Appendix C: Troubleshooting the PCC installation & configuration .................................................... 21
1. Overview

The Print & Copy Control (PCC) module provides copy control and secure printing, similar to that of control terminals such as PCS or PC-100, on select multi-functional products (MFPs). It features the ability to collect detailed document characteristics such as paper sizing, color, duplexing, stapling, or input trays. The module also tracks and caches copy job data.

The PCC module is embedded on the MFP, collecting user input via the device’s operator panel, and job data during the copy process. PCC communicates with the print tracking and accounting application on your network for user account information based on either user identification or PINs entered on the MFP.

While PCC provides a means of secure document release for print job, PCC does not actually track print job data. Network print monitors handle the print data, including any incremental print page counts appearing on the PCC screens.

This guide is not intended to provide installation or configuration details pertaining to the accounting software (except in the case of specific upgrades required to function with these embedded applications), control terminals, or your MFP.

For more information regarding any of those products, please refer to the relevant product documentation.

Note: PCC cannot run concurrently on the MFP with other extended applications, such as Global Scan or Document Mall. You must remove other such applications prior to installing PCC.
1.1 **User interface conventions**
This documentation differentiates between user input on the MFP and on the operator panel in the following manner:

- **button** refers to graphical buttons on the operator panel, such as the Login, Logout, or Exit buttons
- **key** refers to hard physical keys on the MFP, such as the number pad keys, the Start key, or function keys such as Copier, Scanner, Fax, and so on.

1.2 **System requirements**
Printers
- Aficio 1022, 1027, 1032, 1035, 1045, 1060, 1075, 3800C MF

Note: For a PCC installation, the MFP must have full scanner functionality, including an accessible Scanner key, installed before you can install PCC.

**Printer-embedded components**
- **VAS**
- Embedded application framework

**Network software**
- **PCSM 2.5.2** with appropriate patch, or
- **PCSM 2.5.3** or later
- **NTS Data Server** (if using PINs for user logins)
- **PCSM Secure Document Release** (if using PCC for print release)
2. Installing embedded components

2.1 Preparing to install
Before you begin the installation, ensure you have met the system requirements for your multifunctional product (MFP) and PCSM installation (including any PCSM add-on applications required for your planned PCC usage):

- the MFP has the appropriate firmware for that make and model number already installed
- the MFP hard disk has been initialized
- the MFP has been powered off and on at least once since the hard disk initialization
- no other embedded applications installed (such as GlobalScan or DocumentMall)

Note: Certain MFPs require model-specific firmware:
- Aficio 1060/1075 models: require Ricoh controller firmware b064_controller_v111DCM.bin to support embedded applications.
- Aficio Color 3800CMF models: require Ricoh controller firmware 3800cmf.sm1.01.bin, included in the distribution, to support embedded applications.

For information on the hardware supported for these embedded applications in general, please refer to the Hardware Support list in the appendices.

Note: Technicians require multiple 4MB IC cards for the installation; refer to the readme.txt file included in the download for the names of the files to be copied to the IC cards.

2.2 Component installation
1. Initialize the MFD hard disk. Since some MFD ship with applications already installed (for example, DocumentMall), you must remove these embedded applications before you can install PCC.
2. Ensure there is no IC card in the slot on the device, and turn the device power switch off.
3. Insert the VAS card in the slot, and turn the device power switch on.
4. Install the VAS component. This is a standard Ricoh installation process.
5. Power off the device, and remove the VAS card.
6. Insert the Framework ROM card, and power on the device.
7. Install the framework component. This is also a standard Ricoh installation process.
8. Power off the device, remove the Framework ROM card, and turn the device on again.

Note: The Framework part of the installation occurs in two steps; you must remove the card after step 7, and re-insert it when prompted after enabling the extended applications.

9. At this point, you must enable extended applications in the User Tools menu on the device:
   a. On the device, press the User Tools/Counter key.
   c. Press the Key Operator Tools tab.
   d. Press Next until the Extended Features screen appears. (You may require an operator code to access this screen.)
   e. Press Extended Features.
   f. Press On.
   g. Press OK.
   h. Press Exit until you are out of the User Tools/Counter menu.
10. Power the device off, then on again.
11. Wait for the prompt to insert the Framework ROM card a second time to continue with the installation. It may take a moment for this prompt to appear.
12. Insert the Framework ROM card, and press Continue installation on the device screen.
13. Wait for the prompt to configure the administrator password.
14. Enter six to eight digits on the keypad, and press Done. Confirm the password as prompted. Record the administrative PIN somewhere safe for future reference.

15. When the configuration screen appears, press Install new module.

16. Remove the Framework ROM card and insert the module card. The device will prompt for the ROM 1 card, but you must insert the PCC module card next.

17. Press Read ROM card on the screen.

18. Wait for the prompt to confirm the module installation.

19. Press Install [module name].

20. When the device notifies you that the installation is complete, press OK.


22. Press Activate beside the newly-installed module in the listing.

23. When keyboard screen appears, enter the activation code and press OK when done. The activation code is the module license code that you must obtain from Ricoh, and is based on the serial number of the device.

24. At the prompt, confirm the activation code you have entered. Press Yes if correct, or No to return to the keyboard screen to re-enter the code.

25. The device will return to the configuration screen. Press Restart Modules.

26. Turn the device off, remove the card, then turn the device on again.
2.3 Additional module configuration
To access the application installation or configuration features at any time after
the initial installation, you must open a PCC administrative session on the MFP as
follows:
1. At the PCC user login screen, press the Clear modes key on the MFP.
2. Press the Start key.
3. On the device keypad, press the numbers “01231230”. This will open the
   PCC configuration screen.

Once you have logged in as an administrator, you may alter current module
configuration or install additional modules as needed.

Use the Exit button to close the configuration session at any time.

The About tab provides basic machine and software version details. Touch the
tab to open it on the screen.

General configuration
1. On the General configuration tab, select either Copy Control Only or Print
   and Copy Control.

Network configuration
2. Enter the TCP/IP address of the PCSM accounting server by pressing
   Accounting Server IP and typing the address. Do not place any leading
   zeros in front of any of the four numbers of the address.
3. Enter the Netbios name of accounting server with which you will
   associate this device by pressing Accounting Server Name and typing the
   name.

The following two options are available only if you select the Print and Copy
Control option:
4. If the device is being used for print release, enter the name of the PCSM
   print queue associated with this device by pressing Printer Queue Name
   and typing the printer name as it appears in Windows.
5. Enter the print server IP address by pressing the Print Server IP line and typing the address. Do not place any leading zeros in front of any of the four numbers of the address.

6. Select your preference for login prompts:
   - **Use 1 PIN** - user login prompts for one PIN only. Your NTS device must also accept a single PIN only, or the user login will fail.
   - **Use 2 PINs** - user login prompts for two PINs, acting as a name and password combination. You can use a single PIN entry in the Primary PIN field of the login screen if your accounting server only requires one for user identification.
   - **Use ID/password** - user login prompts for valid Windows user ID and password credentials. You can also enter PINs in these fields. You can also enter PINs in these fields, using a single PIN entry in the User ID field, and a double PIN entry in the User ID and Password fields on the login screen.

   Note: In the case of a mixed environment employing both Windows and non-Windows operating systems, configure PCC to prompt for the 2 PINs option, and configure the PINs in PCSM’s Accounts Manager.

7. Enter a default time-out for use in determining if users have walked away from the device. User sessions will terminate on reaching this time-out. This option defaults to 240 seconds.

8. Press Exit to save your configuration options and go to the login screen.

**Security options**

9. To prevent user access to the configuration tools, enter a key operator code for all initial settings through the User Tools/Counter menus on the device.
Registering the device in the accounting server

10. Using PCSM’s System Manager, browse to the Copiers node, and register the device using its TCP/IP address as the device name, as in the example: “192.111.111.12”. Do not place any leading zeros in front of any of the four numbers of the address.

11. Define the print server registry settings:
   a. On the print server, run regedt32.
   b. Navigate to: HKEY_LOCAL_MACHINE\Software\Software Metrics\PAS2\SM_PrintCoordinator.
   c. Using the Edit->Add Value menu, add the Value name: AllowAnonymousAccess, with the Data Type selected to be REG_DWORD. Click OK.
   d. Enter a value of 1.
   e. Using the Edit->Add Value menu, add the Value name: AnonymousAccessPassword, with the Data Type selected to be REG_SZ. Click OK.
   f. Enter the string: password.

12. Stop and restart the SM Print Coordinator Service for the new registry values to take effect.
2.4 PCSM 2.5.2 configuration

In addition to the application installation on the MFP, you must also ensure that you have the PCSM applications correctly installed and configured on your network. As part of this, ensure you have any device running these embedded components correctly registered within the PCSM application.

In addition to the card image files, technicians must download and install the updates for PCSM:

1. Download and unzip the accounting server patch or update file (for example, AccountingServer[version].zip).
2. Stop the SM Accounting Server service.
3. Copy the new accounting server files over the old ones. The default folder is Program Files\SoftwareMetrics\PrintLogAccountingServer\AccountingServer.
4. Start the SM Accounting Server service.
3. Using Print & Copy Control

3.1 Opening an administrative session
You can access open an administrative session from the PCC user login screen, or the application logo screen, using the following MFP key sequence:

```
? Clear Modes
? Start
?0 1 2 3 1 2 3 0
```

When the configuration screen appears, you can access the User Tools/Counter menus, or any of the various copier functions, such as Copy or Facsimile.

To return to the PCC configuration screen after using one of the other MFP features, press the Scanner key once or twice until the PCC screen reappears. From the PCC configuration screen, close the administrative session by pressing the Exit button.

Note: The Scanner key toggles between the MFP’s Scanner application, the PCC logo screen (from which you can open an administrative session), and the PCC screen.

Disabling the PCC software temporarily

1. Turn the copier off, then on again.
2. Before the PCC login screen appears, press User Tools/Counter.
3. Disable Extended Applications from the User Tools/Counter menu:
   b. Press System Settings.
   c. Press Key Operator Tools.
   d. Press Next.
   e. Press Extended Applications.
   f. Press Off.
4. Turn the copier off, then on again.

To re-enable the PCC software, repeat the steps listed previously in this section, but press On at step 3(f).

Removing the software permanently: formatting the MFP hard disk

The simplest method of removing applications from the MFP is to reformat the internal hard disk.

The following section uses the Aficio 3800 as an example for this process. For other models, please refer to the relevant service manual for your MFP.

Note: This procedure removes all installed extended applications, including VAS, and cannot be undone.

- To Initialize /reformat the hard disk:
  1. Press the User Tools/Counter key.
  2. Press the Maintenance button on the operator panel.
  3. Press the HD Format button.
  4. Press OK on the operator panel.
  5. Press Exit until you are out of the User Tools/Counter menu.
Removing an embedded module

These removal steps are only for Aficio 3800cmf copiers or the same models as otherwise branded.

To remove either VAS or the embedded application framework, insert a memory card containing the relevant component and power up the copier. Use the installation screen to remove either component. You must remove the card and reboot the machine to complete the process.

Removing any of the Equitrac applications by any of these means will not change any settings that have been made in the User Tools/Counter menus. You must manually reverse the installation steps that modified the copier settings in order to completely and cleanly remove any trace of the installation.

NOTE: To restore the Ricoh firmware to its state prior to installation, you must obtain the previous or current versions of the firmware from Ricoh and install them as instructed.

3.2 Opening a user session

This section details using PCC from an end-user perspective.

When a user first approaches a PCC-enabled machine, the print and copy features are locked until the device receives valid authentication from the user’s login credentials.

Logging in to PCC

If the MFP is configured to accept a user ID and password:

1. Press the User ID button on the screen to display the keyboard interface.
2. Type your Windows login, and press OK. If your user ID comes from a domain different than the accounting server’s, use the domain\userID format.
3. Press Password to display the keyboard interface.
4. Type your password, and press OK.
5. Press Login to log into the device.

If the MFP is configured to accept one or more PINs, you can either press a PIN button to display the keyboard interface as above, or:

1. Press the Primary PIN or Secondary PIN button to highlight the required field.
2. Type the PIN on the MFP number keypad.
3. Use the Enter key to toggle between the first and second PIN field.
4. After typing both PINs, press Login to log into the device.

If the MFP is configured to accept a user ID and PIN:

1. Press the User ID button on the screen to display the keyboard interface.
2. Type your Windows login, and press OK. If your user ID comes from a domain different than the accounting server’s, use the domain\userID format.
3. Select Password, and use the keypad to type your PIN in the Password field.
4. Press Login to log into the device.

Selecting documents to print or delete

The Job List screen
After a successful login, the Job List displays the queued print jobs associated with your login credentials. This screen tracks the total number of copies or printed pages, as well as the number of pages in your document listing, and the number of selected documents.

Touch any individual listing to select that document, and touch again to unselect. You can select multiple documents.

If you have more than five documents in the print queue, use the Previous and Next buttons to navigate through the pages of the list.

Press Print to send all selected documents to the printer.

Press Select All to select all documents on all pages without having to touch each listing individually.
If you have a number of documents selected, use Invert Selection to reverse the document selection status. For example, if you have a number of documents selected to print, use Invert Selection to change the highlight to those documents you want to Delete.

Press Refresh List to update the document listing.

Press Delete to remove all selected documents from the print queue.

Press Details to view job details for all of the selected documents (see next section).

Press Logout to end this user session on the MFP.

Use the MFP’s Copy key to the left of the screen to access the copy function. Press the Scanner key, also to the left of the screen, twice to return to the Job List. At any time during your login, you can also use the Scanner key to toggle between this application and the device scanner function.

The Job Details screen
Use the Job Details screen to review all of the document details for each selected job before you print or delete that document. You can still view the copier and printer counters, and the number of jobs selected for detailed viewing.

Press the Previous and Next buttons to navigate through the details screens for each of the jobs you selected on the Job List screen.

Press the Job List button to return to the Job List screen.

Completing the session
You can end your session at any time by pressing the Logout button on the Job List screen.

Once you have copied your documents, the MFP notifies you of your job status with two messages:

?Completing Job: This is the MFP message indicating that it is nearing completion of copy session. The message includes a one-line summary of the job, and the user being charged for this session. This message appears on the screen for as long as the copy count increments.

Job Complete: This message appears when the final copy is complete. The message also includes the job summary, and the user being charged for this session. At this point, another user can open a session by pressing the Login Screen button. This screen will automatically revert to the PCC login screen after a period of inactivity on the MFP.
Appendix A: Hardware Support

The embedded applications support the following multi-function product models. If you require more information, see your hardware manufacturer’s documentation, or visit their online website.

- Aficio devices
  - Aficio 1022, 1027, 1032
  - Aficio 1035, 1045
  - Aficio 1060, 1075
  - Aficio 3800C MF
Appendix B: Firmware preparation (Aficio 3800 only)

Using the Windows application “Memory Card Explorer for For Ricoh V1.10” or above, program a Ricoh-approved IC Memory Cards each with the controller_sm1_01.bin file from the associated zip file.

1. Install the Ricoh firmware components (controller_sm1_01.bin) after updating the copier with the latest firmware available.
   a. Insert the IC card in the PCMCIA slot.
   b. Reboot the device with the card loaded in the slot. The install screen appears.
   c. Press the Update(#) button.
   d. Wait for the screen to display the message Power OffOn.
   e. Power off the copier, wait, then turn the copier on again.

2. Initialize the hard disk:
   b. Press Maintenance.
   c. Press HD Format.
   d. Press OK.
   e. Press Exit until you are out of the User Tools/Counter menu.

3. Turn off the copier off then on again and print the configuration sheet:
   b. Press Printer Features.
   c. Press List/Test Print.
   e. Press Exit until you are out of the User Tools/Counter menu.
4. Verify the following Ricoh firmware version numbers on the Configuration page: System Version : sm101 (Without this version PCC will not function properly)

Continue with the module installations. Verify any installed applications and their version numbers, and proceed with enabling extended applications as described in the module chapter.
## Appendix C: Troubleshooting the PCC installation & configuration

<table>
<thead>
<tr>
<th>Issue</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| Cannot install Equitrac Applications. No Installer screen appears on copier. | • Hard Disk is not initialized. See service manual.  
• Check if the memory card is a genuine Ricoh supplied card. Retry with a genuine Ricoh card  
• Check for bent pins on copier’s PCMCIA connector.                                                                                                                                 |
| When login button is pressed, the MFP cannot contact server or login. | • Check network connections. Examine cable connections.  
• Check if NTS Server can contact copier. Ping printer from PAS server.                                                                                                                                 |
| After the installation is completed, cannot access User Tools on the copier. | • Enter valid user name and password and login. Once logged in you may access User Tools/ Counter menu.  
• Uninstall the PCC application. Once the copier is unlocked you may press User Tools key to access system settings.  
Note: If you enable Key Operator Password in the User Tools menu, you must enter the password in order to make any changes. |
After installing a Ricoh supplied update to the Ricoh 3800 firmware, the Equitrac application fails to run. The copier functions normally, but the locked screen never displays.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>After installing a Ricoh supplied update to the Ricoh 3800 firmware, the Equitrac application fails to run. The copier functions normally, but the locked screen never displays.</td>
<td>• This is a known issue with the firmware update process for Ricoh supplied updates. After updating the Ricoh firmware, you must initialize the hard disk, and reinstall the Equitrac applications. You may have to repeat enabling of the extended application support and setting a key operator pass code. Equitrac is working with Ricoh to correct this problem.</td>
</tr>
</tbody>
</table>