SmartGuard™
SECURITY FEATURE

For FARGO Pro and Pro-L ID Card Printers

User's Manual

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Patent Pending

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Printing History

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Chapter 1: Getting Started

I. INTRODUCTION

Thank you for choosing the SmartGuard Security Feature for FARGO Professional Series ID Card Printers. This unique feature provides both of FARGO's latest security options — SmartGuard and SmartShield — in one, easy-to-use software application program.

The **SmartGuard** option allows you to restrict access to the printer by requiring that a custom access card be inserted into the printer's Security Card Slot in order for the printer to operate. This custom access card is created by using the SmartGuard software to encode a password of your choosing onto one of the included SmartGuard Access Cards.

The **SmartShield** option allows you to encode a custom security image onto the same access card used for SmartGuard. Once encoded, the image is automatically printed along with your standard card design and appears only when the printed card is viewed under ultraviolet (UV) lighting or when viewed at an angle under normal lighting. These custom security images can be created in virtually any design program which supports a bitmap (.bmp) file format.

II. SMARTGUARD REGISTRATION

A SmartGuard Registration Form is included in the SmartGuard packaging. This form is intended to aid in further protecting you in case your printer(s) or your SmartGuard Access Card(s) is ever lost or stolen. *It is extremely important that you fill out and return this form to FARGO Technical Support*. By completing this form, you will be registered into FARGO's database and will be assigned a Personal Identification Number (PIN) of your choosing. Once registered, you are protected in two ways:

1. *If your SmartGuard Access Card(s) is lost or stolen*, you simply need to call FARGO Technical Support, give them your PIN, and you will be given a remote access code specific to your printer which will instantly disable the SmartGuard Security Feature. SmartGuard can then be enabled with a new access card and password rendering the lost or stolen card(s) useless.

2. **If your printer(s) is stolen**, it will be useless to the thieves since FARGO will not divulge the special remote access code unless the proper name, company name, and PIN is provided for that specific printer serial number.

Refer to the SmartGuard Registration Form for details on what information is required and where the form should be sent. If you have misplaced this form or if you have any questions about the SmartGuard software or the registration process, please contact FARGO Technical Support at (612) 941-0050 or fax (612) 941-1852.

III. ABOUT THIS MANUAL

The SmartGuard User's Manual is your step-by-step guide to working with the SmartGuard Security Feature. It provides complete instructions for installing and using the SmartGuard software application program along with helpful hints for creating SmartShield images. Before you begin working with SmartGuard, however, you must completely setup the printer according to the instructions in your printer's User's Manual. The following is a simple checklist of things to do *before* installing the SmartGuard software:

☑ Unbox the printer and load print supplies

☑ Connect the printer's power

☑ Connect the printer to your computer

☑ Install the Printer Driver and 32-Bit Print Spooler Software

☑ Familiarize yourself with the printer's standard operation

Once you have completed these steps, you can begin using SmartGuard. Please refer to Section IV of this chapter for installation instructions.
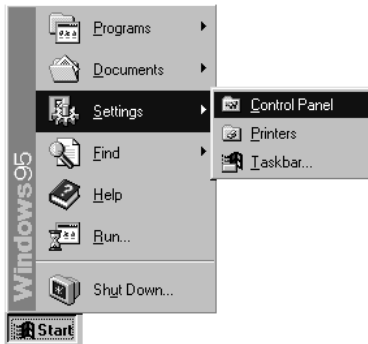
IV. INSTALLING THE SMARTGUARD SOFTWARE

In order to begin using the SmartGuard Security Feature, you must first install the SmartGuard software. This software is for use only with Windows® 95 or Windows NT and installs just like any other standard application program. To install the SmartGuard software, close down all other programs and insert the SmartGuard CD into your computer's CD drive. The software's installer program will automatically open. Follow the on-screen instructions to complete installation. Once installed, the SmartGuard icon, shown below, will appear in the Programs group of the Start menu. Select this icon to open the SmartGuard software.

If the installer program does not automatically open when the CD is inserted into your computer's CD drive, refer to the following steps to install the SmartGuard software:

1. Insert the SmartGuard CD into your computer's CD drive.

2. Click the **Start** button, point to **Settings**, and select **Control Panel**.

3. Double-click on the **Add/Remove Programs** icon.

4. Follow the on-screen instructions to complete installation. Once installed, the SmartGuard icon will appear in the Programs group of the Start menu. Select this icon to open the SmartGuard software.
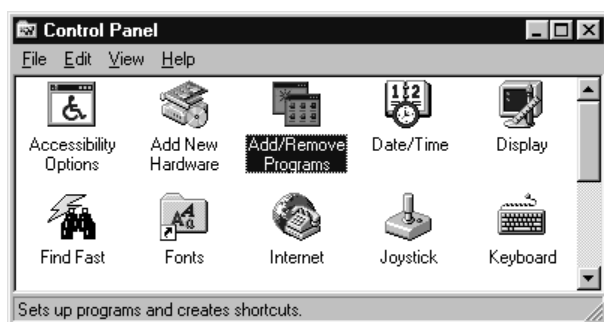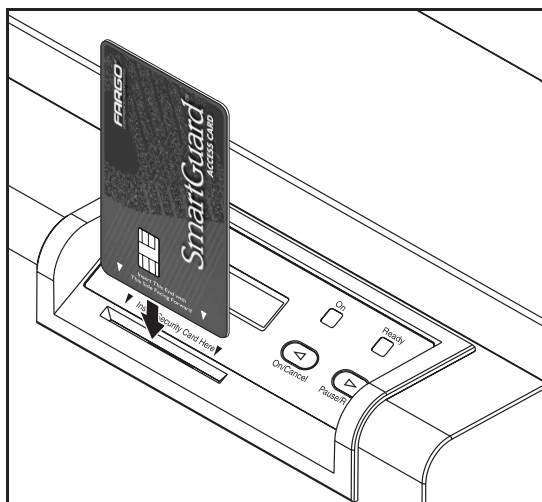
Chapter 2: Using SmartGuard

I. ENABLING SMARTGUARD

Before enabling SmartGuard, it is important to remember that once SmartGuard is enabled, a valid access card must be inserted into the printer whenever you wish to print. If this card is not inserted, the printer will not function. For this reason, it is extremely important to register your copy of SmartGuard according to the instructions in Chapter 1, Section II. Once registered, you will be eligible to receive a remote printer access code in the event your SmartGuard Access Card is lost or stolen. In addition, you may also wish to create a spare access card to keep hidden in a safe place for emergencies. See Chapter 4, Section II to create a duplicate access card. To enable SmartGuard, refer to the following steps:

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Insert a *blank* SmartGuard Access Card into the printer's Security Card Slot. *Insert the card with the smart chip DOWN and facing AWAY from the printer* as shown. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the SmartGuard software by selecting **SmartGuard** from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

5. Select the name of the FARGO ID Card Printer currently connected to your computer, and click on **OK**. This must be done each time the program is opened and is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **SmartGuard** button to display the SmartGuard options.

7. Click on the **Enable/Disable** button. The Password window appears.

8. In the Enter Password box, enter up to an 8 character password using any of the standard alphanumeric keyboard characters.

9. Once the password is entered, confirm the password by typing it again in the Confirm Password box.

IMPORTANT!   *You must remember this password! You will be required to re-enter it whenever you wish to change passwords, encode SmartShield security images, make duplicate access cards, or delete an access card.*

10. Next, select **Use This Card With Multiple Printers** if you have more than one printer with SmartGuard capabilities and would like to use a common access card with all of them. Please note that you must individually enable SmartGuard on each printer, using the same password, in order for a common access card to be used. If you would like the access card to function only with the specific printer in which it was originally encoded, select **Use This Card With One Printer Only**. This option automatically links the printer serial number along with the encoded password to a specific access card, making all other access cards created in other printers invalid. *Note that either option can be selected if you will not be using multiple printers*.

11. Finally, click on the Password window's **OK** button. The password information will be sent to the printer. Encoding will take just a few seconds. The SmartGuard software will indicate when encoding is complete and will prompt you to check the printer's LCD Display to verify encoding was successful.

12. **If encoding was successful**, the message "Key Card Ready" will appear on the printer's LCD Display. Click on the **OK** button to complete the enabling process. **If encoding was unsuccessful**, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartGuard related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the Password window and resend your password.

13. When you have successfully enabled SmartGuard, you may continue using the other options within the SmartGuard software or close the program by clicking on the **Exit** button.

II. CHANGING YOUR SMARTGUARD PASSWORD

Occasionally, you may wish to change your SmartGuard password for security reasons. If you have a SmartShield security image encoded on your access card, it is important to note that the SmartShield image will automatically be deleted when the password is changed. Although this may seem inconvenient, it is necessary to protect against counterfeiters changing your access card's password to gain control of your SmartShield security image. Refer to the following steps to change your password.

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Insert a *valid* SmartGuard Access Card into the printer's Security Card Slot. *Insert the card with the smart chip DOWN and facing AWAY from the printer*. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the **SmartGuard** software by selecting SmartGuard from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

5. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **SmartGuard** button to display the SmartGuard options.

7. Click on the **Change** button. The Change Password window appears.

8. Enter your current or old password into the Enter Current Password box.

9. Enter your new password into the Enter New Password box.

10. Once the new password is entered, confirm the new password by typing it again in the Confirm New Password box.

11. Next, select either **Use This Card With Multiple Printers or Use This Card With One Printer Only** (see Section I, Step 10 of this Chapter for an explanation of these options).

12. Finally, click on the Change Password window's **OK** button. The password information will be sent to the printer. Encoding will take just a few seconds. The SmartGuard software will indicate when encoding is complete and will prompt you to check the printer's LCD Display to verify encoding was successful.

13. **If encoding was successful**, the message "Key Card Ready" will appear on the printer's LCD Display. Click on the **OK** button to finish changing your password. **If encoding was unsuccessful**, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartGuard related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the Change Password window and resend your new password.

III. DISABLING SMARTGUARD

Please refer to the following steps to disable SmartGuard:

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Open the SmartGuard software by selecting **SmartGuard** from the Programs group of the Start menu.

3. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

4. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This is necessary in order for the SmartGuard software to know which printer model you are using.

5. Click on the **SmartGuard** button to display the SmartGuard options.

6. Click on the **Enable/Disable** button. The Password window appears.

7. Enter your current password into the Enter Current Password box.

8. Once the password is entered, confirm the password by typing it again in the Confirm Password box.

9. Select the **Disable SmartGuard Security Feature** option.

10. Click on the **OK** button to disable SmartGuard. The SmartGuard software will indicate when encoding is complete and will prompt you to check the printer's LCD Display to verify encoding was successful.

11. **If encoding was successful**, the message "Key Disabled" will appear on the printer's LCD Display indicating that SmartGuard is now disabled. Click on the **OK** button to complete the disabling process. The printer can now be operated without an access card. **If encoding was unsuccessful**, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartGuard related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the Password window and resend the disable command.

Chapter 3: Using SmartShield

I. ABOUT THE SMARTSHIELD OPTIONS WINDOW

Once SmartGuard has been enabled, it is then possible to enable SmartShield. SmartGuard protection is required prior to enabling SmartShield simply because this makes your SmartShield image more secure. The SmartShield Options window is the software interface used to encode SmartShield images onto your SmartGuard Access Card. This window offers several features which make encoding custom security images a quick and easy process.
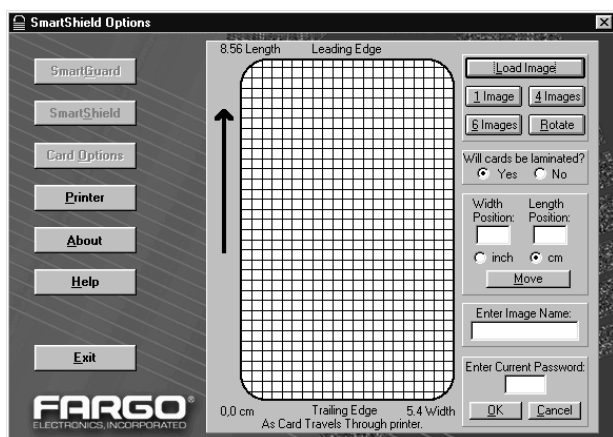
The SmartShield Options window is opened by clicking on the **SmartShield** button within the SmartGuard software. The following is a brief overview of all of the options found in the SmartShield Options window:

Load Image Button

This is the button used to load or open your custom security image. Note that your image must be 300 dots per inch (DPI), must be black and white, must be *no larger* than 248 pixels x 248 pixels (about .82" x .82 or 2cm x 2cm), and must be saved in a bitmap (.bmp) file format. For more information on creating a SmartShield security image, please see Section II of this chapter.

Card Outline

This is the area in which your custom image will appear once it has been loaded. The card outline area is the exact size of a standard CR-80 card. The length and width dimensions of this card outline can be viewed in either inches (3.375" L x 2.125" W) or centimeters (8.56cm L x 5.4cm W). To help you position your image accurately on the card, grid lines are provided within the card outline. These grid lines are spaced in .1" or .254cm increments. To position your security image, simply "drag and drop" the image with your mouse pointer or enter exact placement values into the Width Position and Length Position boxes.

Along side the card outline, you'll notice an arrow pointing up. You'll also notice that the top of the card outline is labeled as the "Leading Edge" and the bottom is labeled as the "Trailing Edge". These items indicate the position of the card outline in relation to how a card feeds through your printer. In other words, as a card is being printed, the Leading Edge will always be the end of the card that exits the printer first and the Trailing Edge will always be the end that exits the printer last, regardless of which way your printed image appears. It is important to keep this in mind when positioning your SmartShield security image so both your card design and your security image have the same orientation when printed. Note that the Rotate button is an easy way to change your security image orientation to match that of your card design.

1 Image Button / 4 images Button / 6 Images Button

When your image is first loaded, it appears as a single image toward the center of the card outline area. If you would like more than one security image on your card, click on either the **4 Images** or **6 Images** button accordingly. Your image will automatically be duplicated and placed in preset locations on the card. If you would like to go back to having a single image, click on the **1 Image** button. Note that only a single security image can be manually moved around within the card outline. Also, note that security images cannot be placed closer than .138" or .350cm from the edge of the card outline. This ensures that printed SmartShield security images will always be positioned beneath PolyGuard if laminated.

Rotate Button

This button allows you to rotate your security image counter-clockwise in 90° increments. As explained in the Card Outline description, this option allows you to easily match the orientation of your security image to that of your overall card design.

Will cards be laminated?

This option allows you to select between two types of SmartShield formats:

Select **Yes** if you will be using SmartShield and <u>WILL</u> be applying an additional overlaminate. This forces the ribbon's overlay to print only where your SmartShield image will appear. Cards printed in this fashion <u>MUST</u> have PolyGuard overlaminate applied to them or the printed image will fade.

Select **No** if you will be using SmartShield and <u>WILL</u> <u>NOT</u> be applying an additional overlaminate. This forces the ribbon's overlay to print everywhere on a card except where your SmartShield image will appear. This is done so the majority of your printed image will be protected by the overlay. <u>DO</u> <u>NOT</u> <u>LAMINATE</u> cards printed in this fashion since the overlay will interfere with the adhesion of the overlaminate.

Note that the onscreen Card Outline area will indicate the two SmartShield formats by displaying the areas that <u>will be overlayed</u> in **BLACK** and the areas that <u>will not be overlayed</u> in **WHITE**.

Width Position / Length Position

When working with only one security image on screen, it is possible to place it anywhere within the card outline area. You can drag and drop the image using your mouse pointer, or you can enter exact coordinates into the Width and Length Position boxes. The width coordinate is measured from the left-hand edge of the card outline to the left-hand edge of your security image. The length coordinate is measured from the bottom of the card outline to the bottom of your security image. If entering coordinates into the position boxes, click on the Move button to move the security image once the coordinates have been entered. If dragging and dropping the security image, notice that the exact position of the image is always shown in the position boxes whenever the image is moved. Note that a

security image cannot be placed closer than .138″ or .350cm from the edge of the card outline. This ensures that the printed SmartShield security image will always be positioned beneath PolyGuard if laminated.

Inch / Centimeter Options

Select one or the other according to which unit of measurement you prefer. Notice that the length and width card outline dimensions change accordingly.

Move Button

If you have entered exact coordinates into the Width and Length Position boxes, click on this button to move the security image.

Enter Image Name

This options allows you to enter a unique name descriptive of your SmartShield security image. This name can be up to 16 characters long and can contain any of the standard alphanumeric keyboard characters. Once your SmartShield security image is encoded onto your SmartGuard Access Card, the name of your image will display momentarily on the printer's LCD Display when your SmartGuard Access Card is first inserted. This option is helpful for verifying the proper access card is inserted if you have created several different access cards, each with a different SmartShield security image.

Enter Current Password

Once you have arranged your security image exactly as you would like it to appear on the printed card, you must enter your SmartGuard password in order to encode the SmartShield image onto the SmartGuard Access Card.

OK

Click on this button to send the finalized SmartShield data to the printer and encode it onto your SmartGuard Access Card.

Cancel

Click on this button to cancel all selections and close out of the SmartShield Options window.

II. CREATING SMARTSHIELD SECURITY IMAGES

SmartShield security images can be created in any application program which allows you to save or export images in a standard Windows bitmap (.bmp) format. To successfully create a SmartShield security image, simply follow these four simple criteria:

- Image must be *300 DPI*
- Image must be *pure black and white* (not grayscale or 256 shades of gray)
- Image must be *no larger than 248 pixels x 248 pixels* (about .82" x .82" or 2cm x 2cm)
- Image must be saved in a bitmap (*.bmp*) file format

If your image is more or less than 300 DPI, if it has color or grayscale shading in it, if it is too large, or if it is not saved as a .bmp, you will not be allowed to load it into SmartShield. To help you better understand what a typical SmartShield image looks like, a sample image called "Secure.bmp" is provided with the SmartGuard software.

This image was originally created in CorelDraw® 7.0 using its standard clipart, drawing, and text tools. It was then sized within CorelDraw to the appropriate size and exported as a 300 DPI, black and white bitmap (.bmp). In nearly all image design applications like CorelDraw, images can easily be created and manipulated to the proper size, DPI, and color. With this particular image, notice that multiple images were combined to create a more interesting design while still meeting SmartShield's size criteria. In general, try to keep your SmartShield security images relatively simple since images with bold letters and/or thicker lines will display best when printed onto a card.
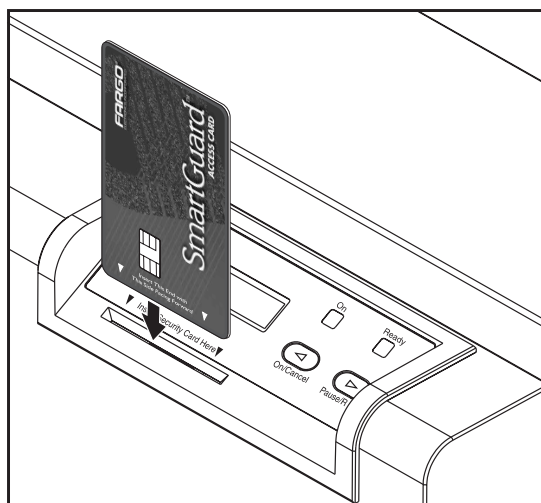
III. ENABLING SMARTSHIELD

Once you have created your security image, you can then load it into the SmartShield Options window and enable SmartShield by encoding the image onto a SmartGuard Access Card. Remember, you must have SmartGuard enabled in order to enable SmartShield. To enable SmartShield, refer to the following steps:
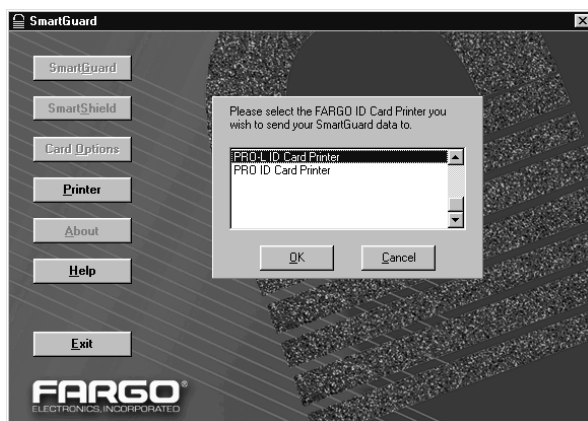
1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed. Also, be sure that blank cards and a full-color ribbon with a clear overlay panel are installed.

IMPORTANT!   *You must use a ribbon type which includes a clear overlay panel (O) when printing with SmartShield enabled. Also, if you have selected to laminate cards, you must use FARGO's PolyGuard™ overlaminate. See page 16 for more information on laminating SmartShield cards.*

2. Insert a *valid* SmartGuard Access Card into the printer's Security Card Slot. ***Insert the card with the smart chip DOWN and facing AWAY from the printer*** as shown. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the **SmartGuard** software by selecting SmartGuard from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.


5. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This must be done each time the program is opened and is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **SmartShield** button to display the SmartShield Options window.
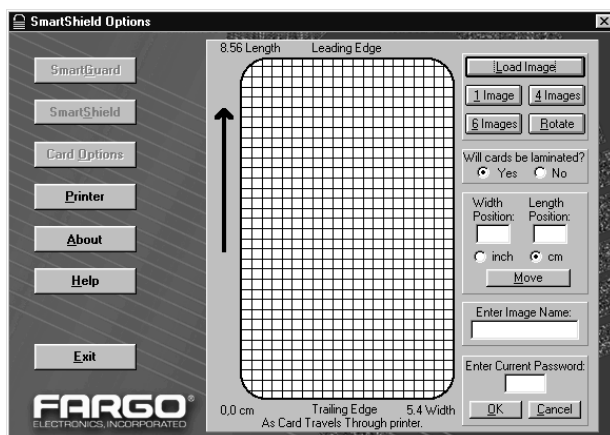
7. Click on the **Load Image** button. When the Open window appears, select your security image and click on the **Open** button.


8. Once loaded, your image will appear in the card outline area of the SmartShield Options window.
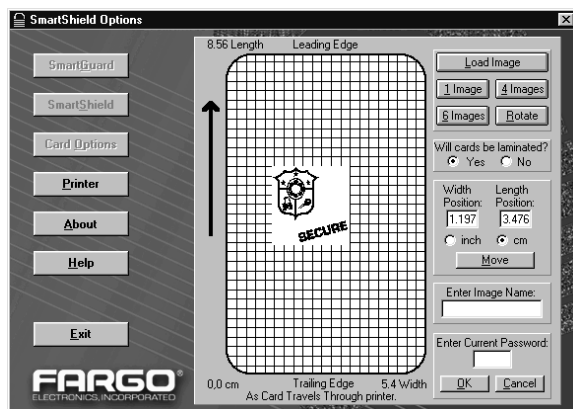
9. If you wish to display only a single security image, move the image to the desired position within the card outline area by clicking and dragging it with the mouse pointer or by entering exact values into the Width and Length Position boxes and clicking on the **Move** button. Note that a security image cannot be placed closer than .138" or .350cm from the edge of the card outline. If necessary, click on the **Rotate** button to adjust the orientation of the security image to that of your overall card design.

10. If you wish to display multiple security images, click on the **4 Images** or **6 Images** button. Your image will automatically be duplicated and placed into preset positions. If necessary, click on the **Rotate** button to adjust

the orientation of the security image to that of your overall card design.
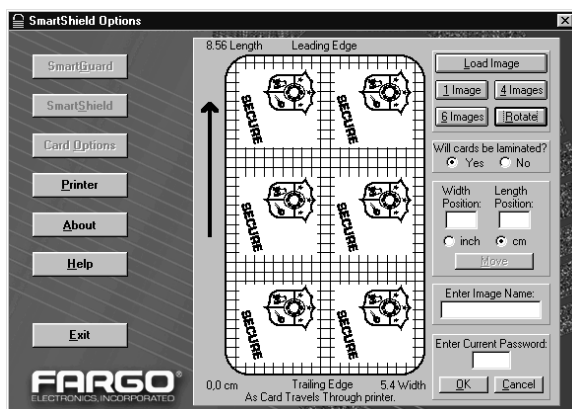
11. Select either **Yes** or **No** according to whether or not you intend to apply PolyGuard overlaminate to your printed cards. Select Yes if using the Pro-L Card Printer with PolyGuard overlaminate. Select No if using the Pro Card Printer or if using the Pro-L without laminating. See page 16 for more information on this option.

12. Enter up to a 16 character name descriptive of your SmartShield security image into the Enter Image Name box. This name will appear momentarily on the printer's LCD Display when your SmartGuard Access Card is first inserted into the printer. This is helpful for verifying the proper access card is inserted if you intend to create several different access cards, each with a different SmartShield security image.

13. Enter your current SmartGuard password into the Enter Current Password box.

14. Click on the window's **OK** button. The SmartShield information will be sent to the printer. Encoding will take just a few seconds. The SmartGuard software will indicate when encoding is complete and will prompt you to check the printer's LCD Display to verify encoding was successful.

15. *If encoding was successful*, the message "Key Card Ready" will appear on the printer's LCD Display. At this time, it is recommended you print a test print by clicking on the **Test Print** button. This will verify that your SmartShield images appear in the appropriate position on the printed card. For test print purposes, SmartShield images will print with the cyan (C) panel of the ribbon so you can clearly see where they are positioned. It is important to note the orientation of the printed security images as the card exits the printer. Be sure the orientation of your security images will match that of your final card design. If the test card looks good, click on the **OK** button to complete the process. If you are not satisfied with the test card, click on the **Cancel** button to return to the SmartShield Options window and make the necessary revisions. You may repeat this process as many times as necessary.

16. *If encoding was unsuccessful*, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartShield related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the SmartShield Options window and resend the data.

17. When you have successfully enabled SmartShield, close the SmartGuard program by clicking on the **Exit** button.

IV. PRINTING AND VIEWING SMARTSHIELD IMAGES

Once SmartShield is enabled, go to the printer driver setup window and select the **Overlay** option. Then, under the **SmartShield** options, select the side or sides on which you would like your SmartShield security image to appear. Once this option is selected, your SmartShield security images will automatically be printed on top of your standard card design the next time you print. ***Remember, when printing with SmartShield enabled, you must use a ribbon type which includes a clear overlay panel (O).*** If at any time you decide you would like to print a card without SmartShield, simply select the **No SmartShield** option within the printer driver setup window.

To view SmartShield security images under normal lighting once they have been printed onto your final card design, simply tilt the card from side to side. You will see the SmartShield images slightly reflect the light. If you would like to view these images more clearly, place the card under an ultraviolet (UV) light away from direct room lighting. The SmartShield images will glow a fluorescent purple.

IMPORTANT!   *If you intend to view SmartShield images under a UV light, be sure to print only onto card stock recommended by FARGO or your Authorized FARGO Reseller. Some card stock is in itself UV fluorescent and will greatly detract from SmartShield's intensity.*

Chapter 4: Card Options

The Card Options button brings up several options pertaining to SmartGuard Access Cards which have already been encoded. These options allow you to *print* the SmartShield security image encoded on an access card, *duplicate* the contents of one access card onto another access card, or *delete* the contents of the access card altogether. Please refer to the remainder of this chapter for instructions on using these options.

I. PRINTING THE CONTENTS OF YOUR SMARTGUARD ACCESS CARD

The Print Card Contents option applies only if you have a SmartShield security image encoded onto your SmartGuard Access Card. If you do, this option allows you to print the security image using the cyan (C) panel of the ribbon. This is helpful if you would like to see exactly what type of security image is encoded on the card. Refer to the following steps to print the contents of your SmartGuard Access Card:

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Insert a *valid* SmartGuard Access Card into the printer's Security Card Slot. ***Insert the card with the smart chip DOWN and facing AWAY from the printer***. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the SmartGuard software by selecting **SmartGuard** from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

5. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **Card Options** button to display the Card Options window.

7. Enter your current password into the Enter Current Password box.

8. Select the **Print Card Contents** option, and click on the **OK** button. Your SmartShield security image will begin printing within seconds.

II. DUPLICATING YOUR SMARTGUARD ACCESS CARD

If more than one person is going to be using the ID card printing equipment, it is often helpful to make a duplicate access card for each of your authorized personnel. You may also want to make a duplicate access card to keep as a spare in case all other access cards are lost or stolen. Be sure to keep this spare card hidden in a safe place. If you require additional blank access cards, more can be purchased from an authorized reseller or from the printer manufacturer. Please note that only access cards bearing the SmartGuard name can be encoded and used within the printer. Refer to the following steps to make duplicate access cards:

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Insert the *valid* SmartGuard Access Card you would like to duplicate into the printer's Security Card Slot. *Insert the card with the smart chip DOWN and facing AWAY from the printer*. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the SmartGuard software by selecting **SmartGuard** from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

5. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **Card Options** button to display the Card Options window.

7. Enter your current password into the Enter Current Password box.

8. Select the **Duplicate Card Contents** option, and click on the **OK** button. The security information will be sent to the printer. The SmartGuard software will indicate when the data is sent and will prompt you to check the printer's LCD Display.
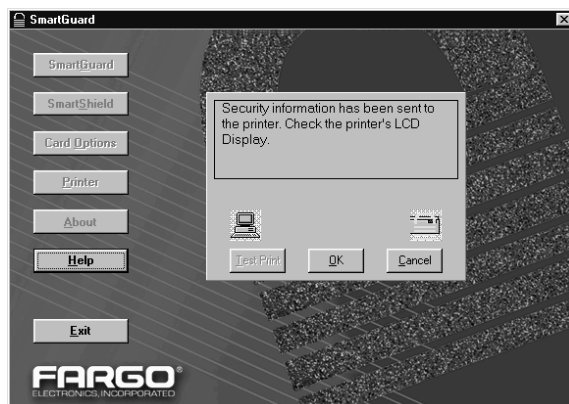
9. Once the printer receives the data, its LCD Display will prompt you to "Insert New Key". At this time, remove the valid SmartGuard Access Card from the printer, and insert the blank access card. Then, as indicated on the LCD Display, press the printer's Pause/Resume button to encode the duplicate data onto the blank SmartGuard Access Card. If you decide not to duplicate the access card, press the printer's On/Cancel button to cancel the duplication process.

10. **If duplication was successful**, the message "Key Card Ready" will appear on the printer's LCD Display. Click on the **OK** button to complete the duplicating process. **If duplication was unsuccessful**, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartGuard related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the Card Options window and retry the duplication process.

III. DELETING THE CONTENTS OF YOUR SMARTGUARD ACCESS CARD

Please refer to the following steps to delete the contents of your SmartGuard Access Card:

1. Make sure your printer is connected to your computer, that power is applied, and that the printer driver software is installed.

2. Insert the *valid* SmartGuard Access Card you would like to delete into the printer's Security Card Slot. *Insert the card with the smart chip DOWN and facing AWAY from the printer*. Be sure to gently push the card all the way into the slot until you feel it "click" into place.

3. Open the SmartGuard software by selecting **SmartGuard** from the Programs group of the Start menu.

4. Once the software opens, click on the **Printer** button to display the list of printers set up in your system.

5. Select the name of the FARGO ID Card Printer currently connected to your computer and click on **OK**. This is necessary in order for the SmartGuard software to know which printer model you are using.

6. Click on the **Card Options** button to display the Card Options window.

7. Enter your current password into the Enter Current Password box.

8. Select the **Delete Card Contents** option, and click on the **OK** button. The delete command will be sent to the printer. The SmartGuard software will indicate when the data is sent and will prompt you to check the printer's LCD Display.
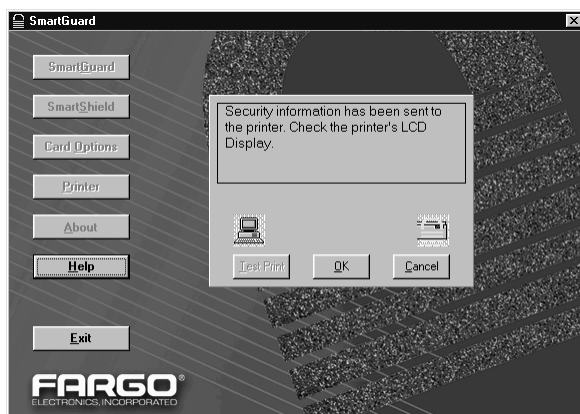
9. Once the printer receives the data, its LCD Display will prompt you to "Delete Key Data?". As indicated on the bottom line of the LCD Display, press the printer's Pause/Resume button to delete the SmartGuard Access Card. If you decide not to delete the card, press the printer's On/Cancel button to cancel the delete command.

10. **If deletion was successful,** the message "Key Card Deleted" will appear on the printer's LCD Display. Click on the **OK** button to complete the deletion process. **If deletion was unsuccessful**, an error message will appear on the printer's LCD Display indicating the specific problem. See Chapter 5 for a list of SmartGuard related LCD error messages. Correct the problem, then click on the software's **Cancel** button to return to the Card Options window and resend the delete command.

Chapter 5: Interpreting LCD Display Messages

While encoding SmartGuard or SmartShield information onto a SmartGuard Access Card, it is important to refer to the printer's LCD Display to confirm whether or not the information was successfully encoded. The following table offers a complete list of SmartGuard and SmartShield related LCD Display messages along with an explanation of the cause of each message. If the message is communicating an error or requires an action, the table also offers a solution explaining what should be done. For a complete list of all other LCD Display messages, please refer to your printer's User's Manual.

Message	Cause	Solution
Delete Key Data? RESUME=Delete	Appears when you are trying to delete a SmartGuard Access Card.	Press the printer's Pause/Resume button to complete the deletion process. If you decide not to delete the card, press the printer's On/Cancel button.
Insert New Key RESUME=Duplicate	Appears when you are trying to duplicate a SmartGuard Access Card.	Remove the valid access card being duplicated and insert a blank access card. Then, press the printer's Pause/Resume button to complete the duplication process. If you decide not to duplicate the card, press the printer's On/Cancel button.
Invalid Key Card	The SmartGuard Access Card is invalid or is inserted backwards or up-side-down.	Insert a valid SmartGuard Access Card or reinsert the card properly with the chip end down and facing you as shown on page 4.
Invalid Password	You have entered an invalid SmartGuard password.	Re-enter the correct password using any of the standard keyboard characters.

Message	Cause	Solution
Invalid Shield Send New Shield	Appears if the SmartShield data on your SmartGuard Access Card has somehow become corrupt.	Re-encode the SmartGuard password and the SmartShield data onto the card.
Key Card Deleted	Indicates the data on your SmartGuard Access Card was successfully deleted.	
Key Card Ready	Indicates SmartGuard or SmartShield data has successfully been encoded onto the SmartGuard Access Card.	
Key Disabled	Indicates the SmartGuard Security Feature has been disabled.	
Key Not Inserted	You are trying to print without the SmartGuard Access Card inserted.	Insert a valid SmartGuard Access Card.
No Shield Loaded	You are trying to print with the printer driver's **SmartShield** option selected even though you do not have a SmartShield image encoded onto the SmartGuard Access Card currently inserted into the printer.	Insert an access card which contains a SmartShield image or encode a SmartShield image onto the current card and try your print job again. If you do not wish to print a SmartShield image, simply select the printer driver's **No SmartShield** option.
Printing Shield	Indicates the SmartShield Security Image is printing.	
Rasterize Shield	Indicates the printer is loading the SmartShield security image from your SmartGuard Access Card into its memory. Appears when a valid access card containing a SmartShield image is first inserted into the printer. Note that if you named your SmartShield image, the name will also appear along with this message on the bottom line of the LCD Display.	

Message	Cause	Solution
Reading Key Data	Indicates the printer is reading the data from your SmartGuard Access Card. Appears when a valid access card is first inserted into the printer.	
Writing Key Data	Indicates the printer is writing or encoding data onto your SmartGuard Access Card.	