SelfScore® Scanners
Scanning Tests Surveys and Ballots

For Users in the United States

This equipment complies with the requirements in part 15 of FCC Rules for a Class A computing device. Operation of the equipment in a residential area may cause unacceptable interference to radio and television reception requiring the operator to take whatever steps are necessary to correct the interference.

For Users in Canada

The digital apparatus does not exceed the Class A limit for radio noise emission from digital apparatus set in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émit pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescit dans le réglement sur le brouillage radioélectrique édicté par le Ministre des Communications du Canada.

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Preface

Purpose This guide describes how to use your scanner to score tests and tabulate ballots and surveys.

Audience This guide is primarily intended for use by scanner operators.

Manual Organization This manual is organized as follows:

Chapter 1, "SelfScore Basics" provides an overview of the capabilities of SelfScore scanners, as well as information on setting up and operating your scanner.

Chapter 2, "Testing" describes how to perform testing.

Chapter 3, "Tabulating Surveys" describes how to tabulate surveys and how to print the results.

Chapter 4, "Tabulating Ballots" describes how to tabulate ballots and how to print results.

Chapter 5, "Data Collection Using ScanTools Plus" describes how to score tests, ballots and surveys while sending records to a host computer using ScanTools Plus software.

Chapter 6, "Display Panel Messages" lists and explains messages that appear in the display panel. They are listed in alphabetical order.

Appendix A, "Scantron SelfScore Forms" explains how to order forms for your SelfScore scanner. It also explains that there are a limited number of ink-read forms.

Appendix B, "Positioning the Printers" describes how to position the printers.

Appendix C, "Formulas" describes how combined points are calculated.

Related Documentation

This document is part of a documentation set for your scanner. The documentation set provides product information, installation, operation, and configuration information for system administrators and users:

For SelfScore scanners:

- *SelfScore Quick Start* (part number 277 297 xxx*)
- *SelfScore Operator's Guide* (part number 277 287 xxx*)
- *Scanning Tests, Surveys, and Ballots Using SelfScore* (part number 277 300 xxx*)
- *Elements of Data Colletion* (part number 277 292 xxx*)
- *SelfScore Quick Tips - Scanning Tests, Surveys, and Ballots* (part number 277 299 xxx*)

* Where xxx indicates the current revision number.

For OpScan 4 ES and *i*NSIGHT 4 ES scanners with the SelfScore option:

- *OpScan 4 ES and iNSIGHT 4 ES Quick Start* (part number 277 284 xxx*)
- *OpScan 4 ES and iNSIGHT 4 ES Operator's Guide* (part number 277 283 xxx*)
- *Scanning Tests, Surveys, and Ballots Using SelfScore* (part number 277 300 xxx*)
- *Elements of Data Collection* (part number 277 292 xxx*)
- *OpScan 4 ES and iNSIGHT 4 ES Quick Tips - Maintenance* (part number 277 298 xxx*)
- *OpScan 4 ES and iNSIGHT 4 ES Quick Tips - Display Panel Messages* (part number 277 285 xxx*)

* Where xxx indicates the current revision number.

Contacting Customer Support   See "Requesting Support" on page 87 for details on how to contact Scantron Customer Support.

World Wide Web Access   We invite you to visit our Web site at **www.scantron.com**.

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Chapter 1:
SelfScore Basics

SelfScore enables you to use your scanner as a test scoring machine to score tests, tabulate ballots or surveys, and print out a variety of reports for analysis. This chapter identifies Scantron SelfScore scanners to which this manual applies, lists the capabilities of SelfScore scanners, and covers the basics of setting up and scanning with your scanner.

NOTE: Configuring, diagnosing, and cleaning of your scanner is beyond the scope of this manual. For information on those subjects, refer to your Operator's Guide.

SelfScore Scanners

There are two types of Scantron scanners with SelfScore capabilities to which this manual applies:

- SelfScore Only Scanners

    SelfScore only scanners are dedicated test scoring machines that can optionally be connected to a computer for data collection.

- OpScan 4 ES and *i*NSIGHT 4 ES Scanners with the SelfScore Option

    These scanners are full function data collection scanners that can be run in various modes. This manual applies to these scanners only when running in SelfScore mode. For information on switching to SelfScore mode, see your Operator's Guide.

Scanner Capabilities

Some of the capabilties of your scanner are:

- Scoring tests
- Using multiple keys
- Scoring and rescoring tests
- Combining essay and test scores
- Scoring based on groups
- Printing letter grades on tests
- Printing results directly on class rosters
- Tabulating surveys
- Tabulating ballots
- Printing item analysis and frequency distribution reports
- Collecting and storing data on a PC using ScanTools® Plus software

Verifying Proper Setup

Before starting your scanning session, you may want to verify that the scanner is set up properly.

1. Ensure that the positioning stand is in the down position.

Positioning Stand
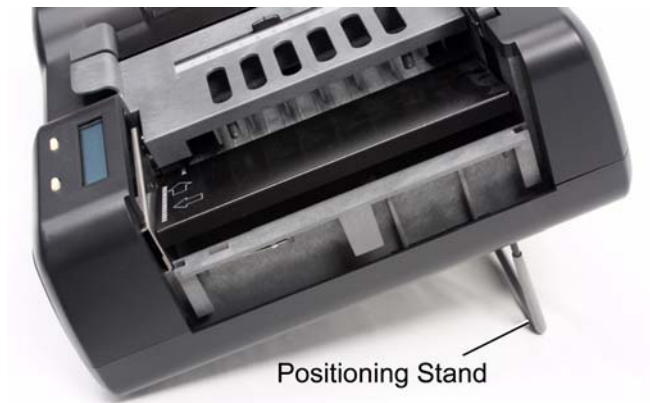
2. Ensure that the input tray and output tray are in place and that the adjustment bar is properly positioned for the sheets being scanned.

Adjustment Bar
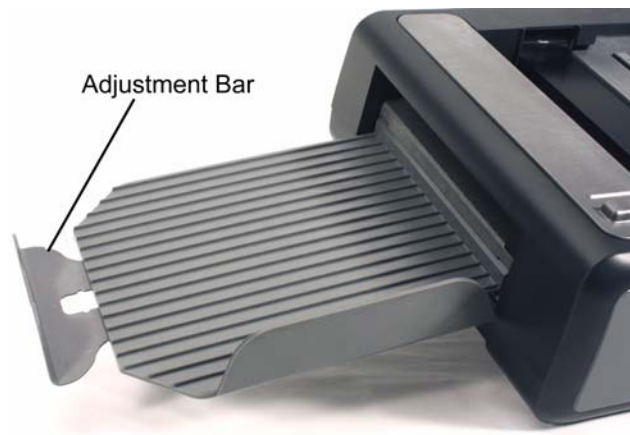
3. Ensure that the covers on the sheet deflector (or optional bar code reader), read head, and printers are closed and fully seated.

4. Ensure that the power supply is plugged into both a wall outlet or power strip and the back of the scanner.

5. **(optional)** Check to ensure that the scanner is connected to a computer via USB cable if you will be collecting and managing the data on a PC using ScanTools Plus software.

Scanning Sheets

Use the following procedure to scan a stack of sheets:

1. Verify that the scanner is ready to scan. The display panel should display the following message:

```
Perform Test Scoring
↓No↓                          ↓Yes↓
```
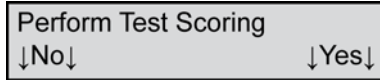
If there is nothing in the display, make sure that you have pressed a button (for about 2 seconds) to bring the scanner out of sleep mode. If there is still nothing in the display, verify that the unit is plugged in and turned on. If necessary, see your Operator's Guide for detailed setup information.

If the message is different from the one shown above, refer to Chapter 6, "Display Panel Messages" in this manual for instructions on the display panel messages. The messages are listed alphabetically.

2. Load sheets in the input tray using steps 3 through 7 as guidelines.

3. Press the **Press To Load** button on the back of the input tray. Pressing this button allows the sheets you

load to slide as far into the input tray as possible. This is important for proper feeding.

4. *(Optional)* If you have a large number of sheets to load, you can use the Tray Lock to secure the input tray in the down position. To use the Tray Lock, press in the **Tray Lock** while pressing the **Press To Load** button.

    Release the Tray Lock by pressing the **Press To Load** button.

    IMPORTANT: The tray lock must be released before you can scan sheets.

5. Load the input tray by stacking all sheets the same way as shown.
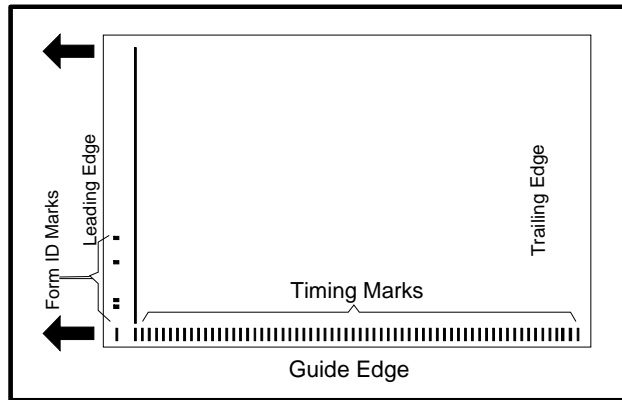
6. Verify that the sheets are as far to the left (as viewed from the front of the scanner) in the input tray as possible.

7. Slide the paper guide so that it just touches the sheets.

8. Follow the instructions in chapter 2, 3, or 4, of this guide to scan the type sheets that you just loaded.

Storing Information

The scanner can store information for one batch of tests, ballots, or surveys at a time. Once the batch is scanned and **Quit** is pressed, the results are erased.

Understanding Display Panel Messages

The display panel displays information regarding:

- Scanner status

- Errors

- What to do next

- Button functionality

See Chapter 6, "Display Panel Messages" for explanations of all display panel messages. The messages are listed alphabetically.

Clearing Document Jams

If documents jam during scanning, the display panel will display an error message. You can use the following general procedure for clearing jams, or see "Display Panel Messages" on page 67 for more information on the specific error message that you received.

1. Lift the following:

   - Sheet deflector
   - Read head
   - Printer cover

2. Remove any sheets on the transport bed.

3. Close all covers making sure that each is fully seated.

4. Return any unscanned sheets to the input tray.

5. Follow the display panel instructions to resume scanning.

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Chapter 2:
Testing

This chapter explains how to score tests with your SelfScore scanner.

Test Scoring Capabilities

In test scoring mode, you can:

- Create up to 4 keys for a single test
- Add a performance assessment score to a test
- Weight the test by assigning the percent of the total score that the performance assessment represents
- Mark tests with error marks or correct answers as well as printing scores and grades on each sheet
- Print numerous results forms (general and detailed item analysis and frequency distribution)
- Print letter grades on answer sheets and results sheets
- Print grades on a class roster form for easy entry into grade books

Appendix A explains how to order forms for your SelfScore scanner.

Creating the Key

Marking the Correct Answers

To create a key with one answer correct per question, simply mark the correct answers to the questions.

Making Any Answer Correct

When you want to score any answer as being correct for a question, simply mark all the responses for that question on the key.

NOTE: This option is not available if the Multiple Answer Scoring bubble is marked. See "Multiple Answer Scoring (optional)" on page 18 for more information.

KEY   ANSWER SHEETS

1. *T* *F* ●●●●●   All answer sheets score #1 correct

Answer Key Info

Item Count

Fill in the Item Count boxes with the number of test questions that will be scored, then mark the bubbles below the boxes.

You must complete the Item Count →

If using more than one key, complete the # Of Keys and the Key ID. (The Key ID is located in the upper left corner of the test sheet.)

of Keys

If you are using more than one key, fill in the **# Of Keys** box with the number of keys you are using, then mark the bubble below the box. If you are not using more than one key, leave this area blank.

Key ID

If you are using more than one key, mark one bubble on each key so that each has a unique identifier. If you are not using more than one key, leave these bubbles blank.

CAUTION: If you are scanning with multiple keys while collecting data using a PC and ScanTools Plus software, the score profile must be a subtest defined for each key. If not, when sending data to ScanTools Plus, the software does not know if it is done scanning

keys and will treat subsequent keys as an answer sheet and store the data in the output record.

Scoring and Printing Options

The following grid illustrates the options.

Correct Answer / Mark X / Total Only

You must make one of these choices:

- Choose **Correct Answer** to mark wrong answers with the correct answers.
- Choose **Mark X** to mark wrong answers with an X.
- Choose **Total Only** when you don't want the wrong answers to be identified.

Rescore (optional)

If you mark the Rescore bubble, the scanner's printing will move from the Score column to the Rescore column.

Scantron suggests the following for using Rescore.

1. Give a test in which wrong answers are marked with an X. Have students correct their mistakes. Then mark the **Rescore** and **Correct Answer** bubbles on the key. Re-scan the key and answer sheets. The scanner will print the correct answers in the Rescore column next to any answers that are still wrong. Then students can review the correct answers.

2. You may give a test and find that you want to throw out a question after the answer sheets have been scored. Go to that question on the key and fill in all of the responses. Then mark the Rescore bubble. Re-scan

the key and the answer sheets. The scanner will score each student's answer for that question as correct and will print results in the Rescore column.

Multiple Answer Scoring (optional)

When this bubble is marked, a correct answer can consist of more than one response.   When you reach such a question on the test, mark all the responses required for the answer to be correct. When tests are scored, all of the responses for the correct answer must be marked on the answer sheet for the question to be scored correct. For example:

KEY   ANSWER SHEETS
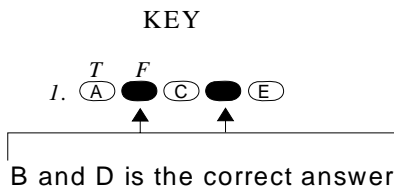
T   F
1. Ⓐ ⬤ Ⓒ ⬤ Ⓔ   *1.* Ⓐ ⬤ Ⓒ ⬤ Ⓔ ◄——— Correct
        ↑   ↑   *1.* Ⓐ ⬤ Ⓒ Ⓓ Ⓔ ◄——— Incorrect
B and D is the correct answer   *1.* Ⓐ ⬤ Ⓒ ⬤ ⬤ ◄——— Incorrect

NOTE: When using multiple answer scoring, you cannot mark any answer as being correct by marking all answers.

CAUTION: You cannot use Multiple Answer Scoring if you are connected to a PC and collecting data with ScanTools Plus software.

Performance Assessment (optional)

Performance assessment is used to record a score for something that does not lend itself to multiple-choice testing, such as an essay, show-your-work questions, observations, etc.

Points Earned

Mark the Points Earned boxes with the highest possible points for the assessment, then fill in the bubbles below the boxes.

% Of Total Score

If you want each point of the performance assessment and each point of the scanner-scored test to have equal value, mark the Equal Pt. Value bubble.

If the performance assessment and the scanner scored test do not have equal value, mark the % of Total Score grid with the percent of the total score you want the performance assessment to make up.

CAUTION: Do not mark both the equal pt value and percentage sections. You must select one or the other.

Highest possible points earned

Test and assessment points weighted equal value

Example: A test of 25 points and an essay of 20 points are recorded on a key sheet. The instructor decides the test is 67% of the grade and the essay is 33% of the grade. The combined possible points earned are 37. (This figure is weighted.)

The first student gets a score of 21 on the test and 18 on the essay. The student receives combined earned points of 32 and a combined percent that are correct of 86.

The second student gets a score of 19 on the test and 5 on the essay. This student receives combined earned points of 22 and a combined percent that are correct of 59.

Refer to Appendix C, "Formulas" for the formulas used to calculate the combined scores.

As answer sheets are scanned, the scanner prints test information in the left column and the combined test/performance assessment information in the right column:

NUMBER CORRECT	2 0
PERCENT CORRECT	8 0
ROSTER NUMBER	5
SCORE	
RESCORE	

COMBINED POINTS EARNED	7 0
COMBINED PERCENT CORRECT	9 3
LETTER GRADE	A
SCORE	
RESCORE	

Completing the Optional Letter Grade Key

This optional key enables you to print letter grades on answer sheets and on a number of the results sheets.

Complete each of the Grading Percentage Breaks grids that you want to use.

GRADING PERCENTAGE BREAKS

✏ *Bubble-in the percentage break for each letter grade used.*
✏ *Leave blank the boxes for grades you wish not to use. i.e. A+, A-, B+, B-, C+, C-, D+, D-.*

This % and above for a A+

This % and above for a A

Make sure you bubble the percentages from the top down, as shown in these examples.

Completing the Answer Sheets

To have students complete the answer sheets, simply have the respondents mark the answer sheets with their answers.

Multiple Keys (optional)

If using multiple keys, have the students mark the Key ID grid with the test they're taking.

KEY ID

Complete with the respondents' test ID

Performance Assessment (optional)

If using performance assessment, you should mark the points earned in the Points Earned grid on each of the answer sheets after they have been turned in.

POINTS EARNED

0 4 0

Performance assessment points earned

Absent Student Sheet (optional)

When the order of answer sheets is important, the **Absent Student Sheet** can be used to hold an absent student's place in a group of answer sheets. For example, if student number 12 is absent and misses a test, prepare your group of answer sheets in this order: students 1 - 11, **Absent Student Sheet**, students 13 - end. Then student scores will be printed in the correct order on the **Class Roster** so you can enter them in your gradebook.

Completing the Results Sheets

You can use any of these results sheets:

- General Test Item Analysis
- Detailed Test Analysis
- Frequency Distribution
- Class Roster

General Test Item Analysis

Overview

This form indicates the number or percent of students missing each question. It also lists the total number of students, average number and percent that are correct, and, if letter grading is used, the average letter grade.

Using the General Test Item Analysis Sheet

1. You must mark whether results are to be printed by the number incorrect or the percent incorrect.

2. If using multiple keys, complete the Key ID grid.

PRINT OUT BY... ● *# INCORRECT* ○ *%INCORRECT*

KEY ID
(A) (B) ● (D)

Detailed Test Item Analysis

Overview

This form lists the following information:

- Number of students scanned
- Average number that are correct on: multiple-choice score, performance assessment score, combined score

- Average percent that are correct on: multiple-choice score, performance assessment score, combined score

- Average letter grade (if Optional Letter Grade Key used)

The form also lists:

PRINT OUT BY...

● *NUMBER OF STUDENTS* ◄——— One must be marked

○ *PERCENT OF STUDENTS*

1A-2 2B-2 3A-2 4B-2 5B-1 5C-1 6C-1 6D-1 7D-

ITEM ANALYSIS - NUMBER/PERCENT OF STUDENT

- ● The first character represents the question number.

- ● The second character represents the response letter.

- ● The third character represents the number of respondents for the letter shown.

Using the Detailed Test Item Analysis Sheet

IMPORTANT: This information must be marked only on the first Detailed Test Analysis form that is scanned.

1. Mark whether results are to be printed by the number of students or the percent of students.

2. If using multiple keys, complete the Key ID grid.

   NOTE: You will probably need a number of **Detailed Test Analysis** sheets to print the results. We recommend that you put a number of unmarked analysis sheets in the stack. Once the detailed results are completely printed, the scanner will leave the extra sheets unmarked.

When results printing is incomplete, an arrow (→) will be printed as the last character on the sheet. When results printing is complete, ***END*** is printed.

Frequency Distribution

Overview
This form indicates the number or percent of students receiving each score. It also lists the total number of students, average number and percent that are correct; and, if letter grading is used, the average letter grade.

Using the Frequency Distribution Sheet
Mark whether results are to be printed by the number of students or the percent of students.

PRINT OUT BY... ● *# OF STUDENTS* ◯ *% OF STUDENTS*

Class Roster

Overview
This sheet lists the percent that are correct and the letter grade for each student, along with the number of students who took the test and information on averages. To print the letter grades, the **Optional Letter Grade Key** must also be used.

Using the Class Roster Sheet
1. You do not have to mark anything on this sheet.

2. Feed the class roster sheet top side up to print data for the first 50 students.

3. If there are more than fifty students, feed the class roster sheet a second time bottom side up.

NOTE: If you want to put the class roster sheet in the stack and there are more than 50 students, use two class roster sheets. Place the first one top side up and the second one bottom side up.

Performance Assessment, if used

	RESULTS	STUDENT NAME
% CORRECT	86	
GRADE	B+	1 ADAMS, JENNY
	71	
	C+	2 ANDERSON, MICHAEL J.
	88	
	B+	3 BARNS, JAMES P.
	98	
	A+	4 BUTTERFIELD, NANCY M.

Scanning Tests

1. Group the sheets in this order:

   • Key sheets(s)

   • Optional Letter Grade Key

   • Answer sheets/Absent Student sheets

   • Results sheet(s)

2. You can load all of the sheets at once into the input tray as described in "Scanning Sheets" on page 7. If you do this, the scanner will process the entire batch and you can disregard some of the instructions below.

   Alternatively, you can use the instructions below if you would like to feed the sheets one at a time.

3. The scanner operator panel displays the message:

Perform Test Scoring
↓No↓   ↓Yes↓

4. Press **Yes**.

   The scanner operator panel displays the message:

Feed test key
↓Quit↓

5. Feed the key sheet. The scanner prints the points earned, the percent that are correct, and the word "KEY" at the bottom of the sheet. If using performance assessment, it prints the combined number that are correct and combined percent that are correct.

If using more than one key, the scanner will ask you to scan subsequent key sheets. Once keys have been scanned, this message is displayed.

Feed Optional Letter Grade Key, or Answer Sheet
↓Quit↓   ↓Start↓

6. If using letter grades, feed the **Optional Letter Grade Key** now.

7. Then feed the student answer sheets.

As each sheet is scanned, the operator panel displays the number of sheets the scanner has scanned. Also, the scanner prints the number that are correct, percent that are correct, and roster number on each answer sheet. It will also print the combined points earned, and the combined percent that are correct if you are using performance assessment, and the letter grade if you are using the **Optional Letter Grade Key**.

If the key indicates that the incorrect answers are to be marked, the scanner marks them as follows.

MARK CORRECT ANSWER

T F
1. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ   A

2. Ⓐ ⬤ Ⓒ Ⓓ Ⓔ   A.

3. Ⓐ ⬤ ⬤ Ⓓ Ⓔ   A:

MARK X

1. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ   X

2. Ⓐ ⬤ Ⓒ Ⓓ Ⓔ   X.

3. Ⓐ ⬤ ⬤ Ⓓ Ⓔ   X:

A or X	Incorrect because the answer was left blank
A. or X.	Incorrect because the wrong answer was marked
A: or X:	Incorrect because multiple answers were marked (and at least one response was wrong)

Follow the instructions on the scanner's operator panel as you scan sheets.

8. When you are finished scanning answer sheets, scan the results sheets.

9. When you are finished scanning your entire group of sheets and you have all the analysis information you need, press **Quit**.

The scanner operator panel displays the message:

| Results will be lost Quit? |
| ↓No↓   ↓Yes↓ |

10. Press **Yes**. (If you press **No,** you can scan more answer sheets or results sheets.)

The tallied results will be erased and this message will be displayed:

| Perform Test Scoring |
| ↓No↓   ↓Yes↓ |

The scanner is ready for the next group of forms.

Understanding Display Panel Messages

If there are display panel messages seen during scanning that you don't understand, refer to Chapter 6, "Display Panel Messages". Each display panel message is listed alphabetically along with an explanation of what to do next.

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Chapter 3:
Tabulating Surveys

This chapter explains how to use the scanner to tabulate surveys and print results.

Completing the Survey Key

The survey key must be blank. Do not mark any responses.

Group ID

The Group ID grid enables you to set up groups and accept only the surveys with the Group ID numbers you define.

Mark the bubbles according to the following instructions:

Leave blank if not using Group IDs or if any group is acceptable

Mark acceptable Group ID numbers if you want the scanner to reject unacceptable IDs

You can print results by group later if the completed surveys have Group IDs marked.

Completing the Surveys

Persons completing the surveys simply fill in their answers.

If You're Using Groups

If you want to report results by group, use the Group ID grid. (You can mark each Group ID or you can request each respondent to complete it.)

Completing the Survey/Ballots Results Form

If You're Not Using Groups

On the *first* results sheet, do the following.

GROUP ID

1
2
3
4
5
6
7
8
9
Blank ID
Multiple ID
Total of all Groups

If GROUP ID was not used on the survey sheets, mark the "Total of All Groups" bubble to print out all the survey results.

Mark this →

PRINT OUT BY...

NUMBER OF RESPONDENTS
PERCENT OF RESPONDENTS

Choose one of these →

You will probably need a number of results sheets to print the results. If you want to feed them all at once, put a number of extra unmarked results sheets in the stack, then load them in the input tray. Once the survey results are completely printed, the scanner will leave the extra sheets unmarked. If you want to hand-feed the sheets one at a time, you'll be asked to continue to feed results sheets until all of the results have been printed.

If You're Using Groups

On the first results sheet, do the following:

Mark the Group ID(s) for the results set you want to print →

GROUP ID

○ 1
● 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ Blank ID
○ Multiple ID
○ Total of all Groups

If GROUP ID was not used on the survey sheets, mark the "Total of All Groups" bubble to print out all the survey results.

PRINT OUT BY...

● NUMBER OF RESPONDENTS
○ PERCENT OF RESPONDENTS

Choose one of these →

The table below indicates that the print results will be based on the Group ID.

If you mark Group ID . . .	the scanner will print results based on
• Total of all Groups	• Totals for all completed surveys
• A number 1 - 9	• The totals for that group number
• More than one number 1 - 9	• The combined total for all marked groups
• Blank ID	• The totals for completed surveys which had no Group ID marked
• Multiple ID	• The totals for completed surveys which had more than one Group ID number marked

You will probably need a number of results sheets to print the results. If you want to feed them all at once, put a number of extra unmarked results sheets in the stack, then load them in the input tray. Once the survey results are completely printed, the scanner will leave the extra sheets unmarked. If you want to hand-feed the sheets one at a time, you'll be asked to continue to feed results sheets until all of the results have been printed.

Example   For one survey, you may want to print results for three
groups: group 1, group 2, and the total of both groups.
Mark and group the results sheets in the following way:
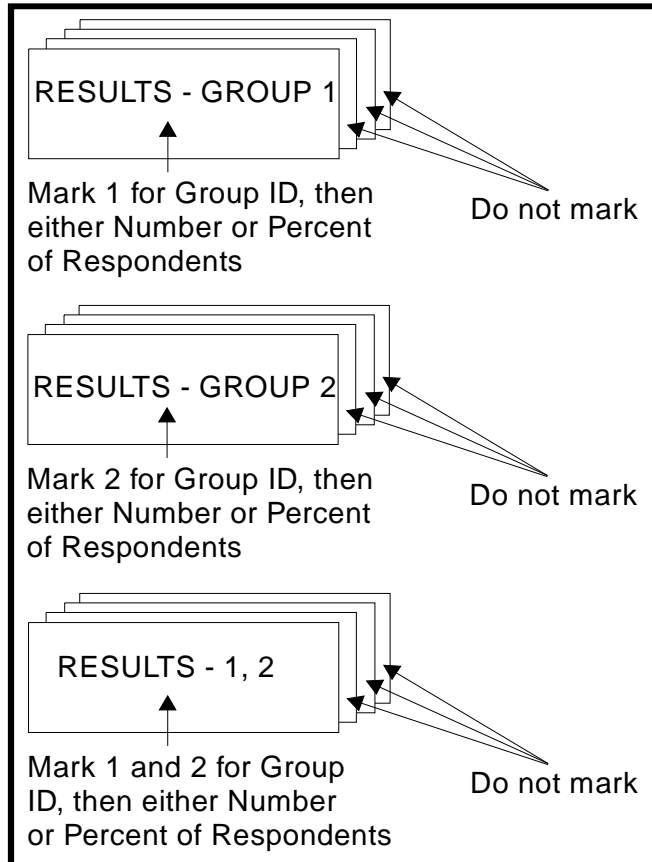
Notice that the first sheet of the last **Results** set has
Group IDs 1 and 2 marked. You might ask, why couldn't
you just mark the Total of all groups bubble instead? You
could. However, with that bubble marked, any scanned
surveys from any groups would be included in the results.

Printed Results

The printed results look like this:

- The first character indicates the group number.

- The second character indicates the number of respondents in the group.

Asterisk indicates group marked, in this case, Total

1-5 2-3 3-0 4-0 5-0 6-0 7-0 8-0 9-0 B-0 M-0 *T-8

NUMBER OF SHEETS SCANNED PER GR...
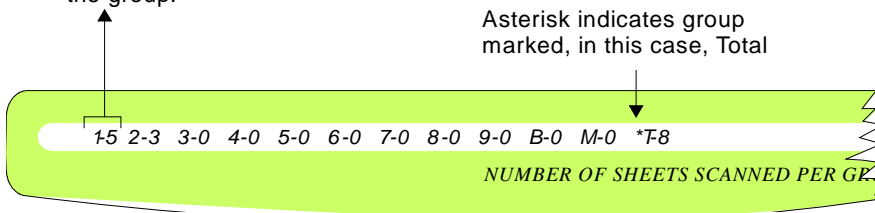
- The first character represents the question number.

- The second character represents the response letter.

- The third character represents the number of respondents for the question number and response letter shown.
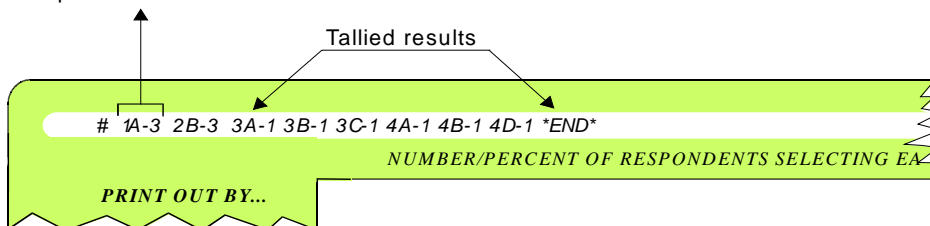
Tallied results

1A-3 2B-3 3A-1 3B-1 3C-1 4A-1 4B-1 4D-1 *END*

NUMBER/PERCENT OF RESPONDENTS SELECTING EA...

PRINT OUT BY...

When results printing is incomplete, an arrow (→) will be printed as the last character on the sheet. When results printing is complete, ***END*** is printed.

Scanning Surveys

1. **Before** you scan the surveys, make sure you have the group of sheets in this order:

   • Survey key (completed Group ID grid or blank form)

   • Completed surveys

   • Survey/Ballots Results sheets (one set per group)

2. The scanner operator panel must display the message "Perform Survey Tally" to tabulate surveys. If this message is not displayed, you can get to it by responding **No** to the "Perform Test Scoring" and "Perform Ballot Tally" prompts.

3. Once the panel displays "Perform Survey Tally", press **Yes**. The following display panel message appears.

Feed survey key	
↓Quit↓	↓Start↓

4. Press **Start** and feed the survey key. The scanner prints the word "KEY" in the Survey Number area of the form and the following display panel message appears.

Feed survey sheet or results sheet	
↓Quit↓	↓Start↓

5. Press **Continue** and feed the completed surveys.

   As each sheet is scanned, the operator panel displays the number of sheets the scanner has scanned.

6. When finished scanning the completed surveys, scan the Survey/Ballot Results sheets. The scanner displays the message "Feed Survey Results sheet or survey" until all of the results have been printed.

7. When you are finished printing results, press **Quit**.

Results will be lost	
Quit?	
↓Yes↓	↓No↓

8. Press **Yes**.

9. The survey results are erased and the following message is displayed.

| Perform Test Scoring | |
| ↓Yes↓ | ↓No↓ |

Understanding Display Panel Messages

If there are display panel messages seen during scanning that you don't understand, refer to Chapter 6, "Display Panel Messages". Each display panel message is listed alphabetically along with an explanation of what to do next.

NOTES

4

Chapter 4:
Tabulating Ballots

This chapter explains how to use the scanner to tabulate ballots and print results. You can also verify that ballots have been completed correctly by completing a ballot key to define exactly what rules voters must follow.

Completing the Ballot Key

If you are not going to have any rules about how ballots are marked, skip the "Verifying Ballots" section and go to the "Group ID" section.

Verifying Ballots

If you want to prevent voters from voting for more candidates or choices than they are allowed, complete a ballot key according to the following instructions.

Valid choices in group

Number to vote for

1   FOR   End of group

2

OFFICE

3

USE

4

ONLY

5

6

7

8

9

10

1. Mark the 3 components (valid choices, number to vote for, and end of group) by filling in bubbles down each column. For example:

You can vote for two candidates

There are three candidates for president

FOR

OFFICE

The group ends here

USE

ONLY

2. Then mark the Mark Count grid as instructed:

MARK COUNT

(This grid may be called "For Office Use Only" on some forms.)

Mark the total number of bubbles you marked on the form

Example   The following is an example of a ballot key which has
been completed for ballot verification:

Since this sample grid has
26 bubbles marked, you must
mark "26" on the Mark Count
grid (shown above).

1   Vote for two of three

2   *FOR*

3   *OFFICE*

4   *USE*   Don't vote

5   *ONLY*

6   ◄— Vote for one

7   ◄— Don't check

8   Vote for one of three

9

10

11

12

13   Vote for one of three

14

15

You may skip numbers
between choices

16   ◄— Don't check

17   Vote for one of two

18

19

20   ◄— Don't check

Group ID

The Group ID allows you to set up groups and accept
only the ballots with the Group ID numbers you define.

Mark this grid as follows:

GROUP ID	Leave blank if not using Group IDs or if any group is acceptable

GROUP ID	Mark acceptable Group ID numbers if you want the scanner to reject unacceptable IDs

You can print results by group later if the completed ballots have Group IDs marked.

Completing the Ballots

Persons completing the ballots simply fill in their votes.

If You're Using Groups

If you want to report results by group, use the Group ID grid. (You can mark each Group ID or you can request each voter to complete it.)

Mark your group number

Completing the Survey/Ballot Results Form

If You're Not Using Groups

On the *first* results sheet, do the following:

GROUP ID

1
2
3
4
5
6
7
8
9

If GROUP ID was not used on the survey sheets, mark the "Total of All Groups" bubble to print out all the survey results.

Blank ID

Multiple ID

Mark this ───▶ ● Total of all Groups

PRINT OUT BY...

Choose one of these ───▶ ● NUMBER OF RESPONDENTS

○ PERCENT OF RESPONDENTS

You will probably need a number of results sheets to print the results. If you want to feed them all at once, put a number of extra unmarked results sheets in the stack, then load them in the input tray. Once the ballot results are completely printed, the scanner will leave the extra sheets unmarked. If you want to hand-feed the sheets one at a time, you'll be asked to continue to feed results sheets until all of the results have been printed.

If You're Using Groups

On the *first* results sheet, do the following:

Mark the Group ID(s)
for the results set you
want to print

GROUP ID

1
2
3

*If GROUP ID was not
used on the survey
sheets, mark the
"Total of All Groups"
bubble to print out all
the survey results.*

4
5
6
7
8
9
Blank ID
Multiple ID
Total of all Groups

PRINT OUT BY...

Choose one of these

NUMBER OF RESPONDENTS

PERCENT OF RESPONDENTS

The table below indicates what the print results will be based on the Group ID.

If you mark Group ID . . .	the scanner will print results based on
• Total of all Groups	• Totals for all completed ballots
• A number 1 - 9	• The totals for that group number
• More than one number 1 - 9	• The combined total for all marked groups
• Blank ID	• The totals for completed ballots which had no Group ID marked
• Multiple ID	• The totals for completed ballots which had more than one Group ID number marked

You will probably need a number of results sheets to print the results. If you want to feed them all at once, put a number of extra unmarked results sheets in the stack, then load them in the input tray. Once the ballot results are completely printed, the scanner will leave the extra sheets unmarked. If you want to hand-feed the sheets one at a time, you'll be asked to continue to feed results sheets until all of the results have been printed.

Example   For one ballot, you may want to print results for three groups: group 1, group 2, and the total of both groups. Mark and group the results sheets like this:
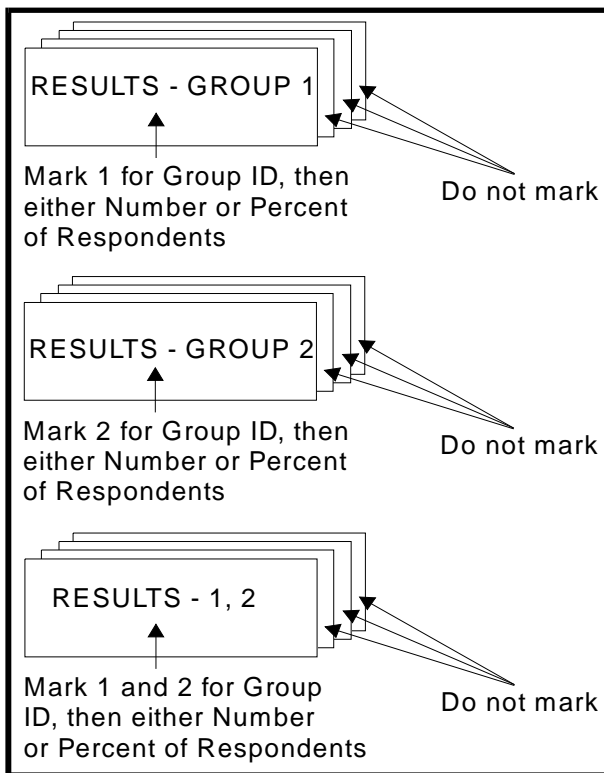
RESULTS - GROUP 1

Mark 1 for Group ID, then either Number or Percent of Respondents

Do not mark

RESULTS - GROUP 2

Mark 2 for Group ID, then either Number or Percent of Respondents

Do not mark

RESULTS - 1, 2

Mark 1 and 2 for Group ID, then either Number or Percent of Respondents

Do not mark

Notice that the first sheet of the last **Results** set has Group IDs 1 and 2 marked. You might ask, why couldn't you just mark the Total of all groups bubble instead? You could. However, with that bubble marked, any scanned ballots from any groups would be included in the results.

Printed Results

The printed results look like this:

● The first character indicates the group number.

● The second character indicates the number of respondents in the group.

Asterisk indicates group marked, in this case, Total

1-5 2-3 3-0 4-0 5-0 6-0 7-0 8-0 9-0 B-0 M-0 *T-8

NUMBER OF SHEETS SCANNED PER GR
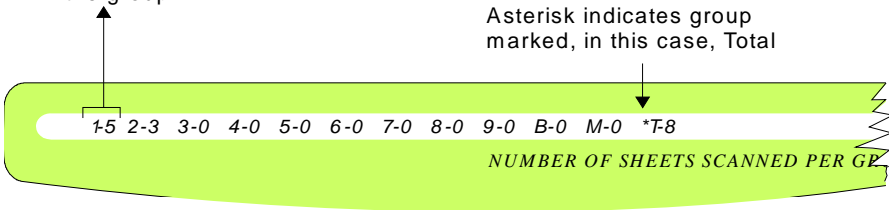
● The first character represents the candidate number.

● The second character(s) represent the number of votes.
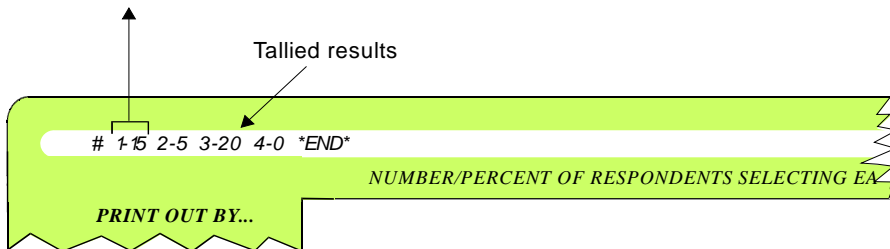
Tallied results

1-15 2-5 3-20 4-0 *END*

NUMBER/PERCENT OF RESPONDENTS SELECTING EA

PRINT OUT BY...

When results printing is incomplete, an arrow (→) will be printed as the last character on the sheet. When results printing is complete, *END* is printed.

Scanning Ballots

1. Before you scan the ballots, make sure the group of forms are in this order:

   • Ballot key (may be completed for ballot verification or Group ID use, or may be a blank form)

   • Completed ballots

   • Survey/Ballots Results sheets (one set per group)

2. The scanner operator panel displays the message "Perform Ballot Tally" at the start of the balloting program. If this message is not displayed, you can get to it by responding **No** to the prompts "Perform Test Scoring" and "Perform Survey Tally." Once the panel displays "Perform Ballot Tally", respond **Yes**.

3. The following display panel message appears.

Feed ballot key	
↓Quit↓	↓Start↓

4. Press **Start** and feed the ballot key. The scanner prints the word "KEY" in the Ballot Number area of the sheet.

Feed ballot sheets or results sheets	
↓Quit↓	↓Start↓

5. Press **Start** and feed the completed ballot sheets.

   As each sheet is scanned, the operator panel displays the number of sheets the scanner has scanned. If the form hasn't been filled out correctly, the scanner prints the word **INVALID** in the Ballot Number area.

6. When finished scanning the completed ballots, scan the Survey/Ballot Results sheets. The scanner displays the message "Feed ballot sheet or results sheet" until all of the results have been printed.

7. When you are finished printing results, press **Quit**.

Results will be lost Quit	
↓No↓	↓Yes↓

8. Press **Yes**.

The ballot results are erased and the following message is displayed.

Perform Test Scoring	
↓No↓	↓Yes↓

Understanding Display Panel Messages

If there are display panel messages seen during scanning that you don't understand, refer to Chapter 6, "Display Panel Messages". Each display panel message is listed alphabetically along with an explanation of what to do next.

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Chapter 5:
Data Collection Using ScanTools Plus

In addition to standalone features and functionality, your SelfScore scanner can be connected to a PC. This enables you to collect and manage scanned data using ScanTools Plus software.

Data Output

When your SelfScore scanner is attached to a host PC with a version of ScanTools Plus software installed, a record containing the response gray levels from both sides (one side for single read head scanners) of the sheet is sent. The data transmission occurs simultaneously with scoring. Data output is compatible with ScanTools Plus software (virtual serial port communications only).

Setting Up ScanTools Software

The mark resolution algorithm used by the scanner matches that used by ScanTools software when the application is configured to use the following scanning parameters (in decimal).

- Threshold = 6
- Discrimination = 3
- Mark Discrimination Cutoff = 10

If other values are specified, you could get discrepancies in answers.

For information on using ScanTools Plus software, refer to the ScanTools Plus User's Guide

CAUTION: Questions with multiple correct answers (Multiple Answer Scoring) must not be used when transmitting the data to ScanTools Plus software.

Operating in Communications Mode

The following topics discuss starting ScanTools Plus software, scoring sheets and outputting data to the ScanTools Plus application, and terminating the ScanTools application.

Starting ScanTools Plus Software

1. The scanner must be in standalone mode with the prompt **Perform Test Scoring** displayed.

2. Start ScanTools Plus software. ScanTools Plus will send a mode switch command to the scanner causing the scanner to switch from the standalone mode to communications mode.

Scoring Sheets

Once the scanner is in communications mode, the operational procedure for scoring a batch of answer sheets is the same as in standalone mode, except that the image of each sheet is sent to the attached host personal computer.

Closing ScanTools Software

1. Once all sheets have been scored and the data has been sent to the host (input hopper is empty), the scanner displays the following message.

Feed answer sheet	
↓Quit↓	↓Start↓

2. Press **Quit** to terminate the batch. (You may need to respond to additional prompts.)

NOTE: The scanner is returned to standalone mode.

NOTE: When operating in communications mode, pressing the **Quit** button on the scanner initiates the sending of an End of Batch code - '0D', '0A' (Hexadecimal).

3. Close the ScanTools application at the host personal computer.

Communications Error Condition

In the event of a communications error (e.g., line failure), the scanner displays the following message.

Processing sheet
↓Quit↓

1. Press **Quit** to terminate the batch. (You may need to respond to additional prompts.)

2. Close the ScanTools application at the host personal computer.

    NOTE: The scanner is returned to the standalone mode.

    NOTE: The last record transmitted by the scanner may have been lost by the application.

NOTES

6

Chapter 6:
Display Panel Messages

This chapter lists display panel messages that can appear on the scanner's liquid crystal display (LCD) panel. The messages are listed alphabetically.

Scanner Terminology

A number of display panel messages refer to parts of the scanner (See diagram below).
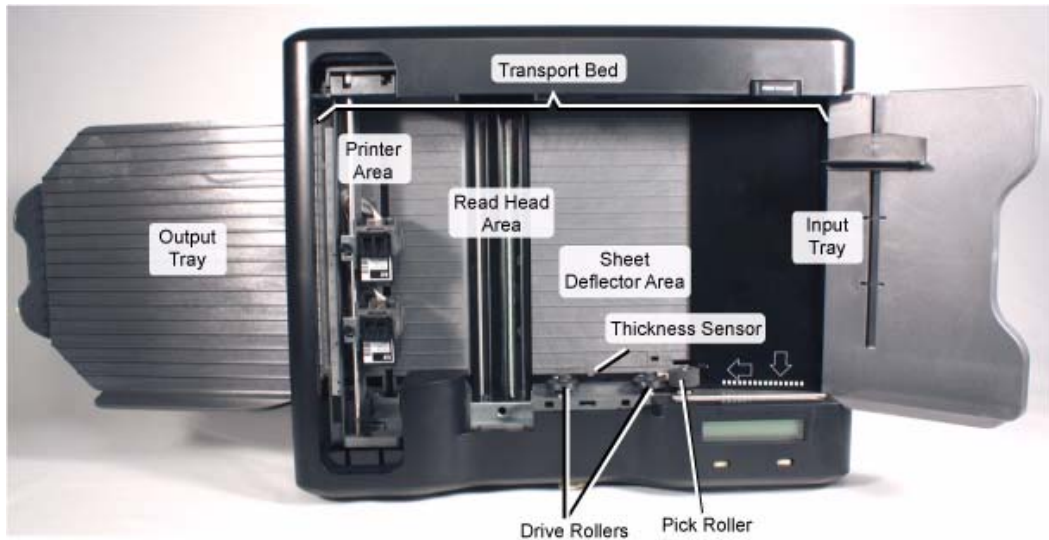
Display Panel Messages

```
# of Keys complete,
Key ID is required.
Change & re-feed key

↓Quit↓        ↓Continue↓
```

The # of Keys grid is complete. The Key ID grid must also be complete to identify which key is being scanned. Complete the Key ID grid and press **Continue** to re-scan the key.

```
# of Keys does not
match previous key.
Change & re-feed key

↓Quit↓        ↓Continue↓
```

The # of Keys grid must be completed the same way on each key sheet. Check that the # of Keys is the same on this key as it was on previous keys. Then press **Continue** to re-scan the key.

```
% of Total Score
marked, so mark
Points Earned.
Change & re-feed key

↓Quit↓        ↓Continue↓
```

The % of Total Score grid is complete on the key, but the Points Earned grid is not. Mark the Points Earned grid with the number of possible points. Then press **Continue** to re-scan the key.

```
According to key,
Key ID is incorrect.
Change & re-feed.

↓Quit↓        ↓Continue↓
```

The Key ID marked on the answer sheet does not match any key that has been scanned. Check the key(s) to view the appropriate Key ID choices and change the answer sheet. Then press **Continue** to re-scan the answer sheet.

```
According to key,
Key ID is required.
Change & re-feed.

↓Quit↓        ↓Continue↓
```

The # of Keys grid is complete, so the key should be identified in the Key ID grid. Complete the Key ID grid; or, if you are not using multiple keys, erase the mark made in the # of Keys grid. Then press **Continue** and re-scan the sheet.

```
According to key,
Points Earned needed.
Change & re-feed.

↓Quit↓          ↓Continue↓
```

This answer sheet has no Points Earned marked. Fill in the Points Earned grid. Press **Continue** and re-scan the sheet.

```
According to key,
Points Earned too large.
Change & re-feed.

↓Quit↓          ↓Continue↓
```

Points Earned on the answer sheet are greater than possible Points Earned defined on the key. Check to see that the Points Earned grid is completed correctly on the answer sheet. If not, change it and press **Continue** to re-scan the sheet. If it is correct, check the key. If the Points Earned grid is incorrectly defined, you will need to re-scan the corrected key and any answer sheets that have been scanned.

```
All responses on the
survey key must be
blank.
Change & re-feed.

↓Quit↓          ↓Continue↓
```

The only mark(s) allowable on the survey key are in the Group ID grid. Fix the form, press **Continue**, and re-scan it.

```
Answer sheet does
not match key sheet.

↓Quit↓          ↓Continue↓
```

The answer sheet form number is not the same as the key. Press **Continue** and scan the correct form.

```
Ballot does not
match key sheet.

↓Quit↓          ↓Continue↓
```

The ballot sheet form number is not the same as the key. Put this sheet aside. Press **Continue** and scan the correct form.

```
┌─────────────────────────────────┐
│ CLEAN READ HEAD                 │
│ RE-FEED LAST SHEET.             │
│                                 │
│                      ↓START↓    │
└─────────────────────────────────┘
```

Clean the entire read head area. Make certain the sheet you tried to scan is properly aligned in the input tray. Adjust the paper guide. Press **START** to re-scan the sheet. Refer to the Operator's Guide for help.

```
┌─────────────────────────────────┐
│ CLEAR PAPER PATH                │
│ RE-FEED LAST SHEET.             │
│                                 │
│                      ↓START↓    │
└─────────────────────────────────┘
```

Clear all sheets from the transport bed. Place the sheets you tried to scan back in the input tray. Adjust the paper guide. Press **START** to re-scan the sheets. Refer to the Operator's Guide for assistance.

```
┌─────────────────────────────────┐
│ Dual read head                  │
│ scanner required to             │
│ process this sheet.             │
│ ↓Quit↓          ↓Continue↓      │
└─────────────────────────────────┘
```

This form can only be scanned at a scanner that can read both the front and the back of the form at once. Substitute another form to continue scanning. To upgrade your scanner, see your sales representative.

```
┌─────────────────────────────────┐
│ Expecting xxxxxx key            │
│ Sheet not recognized            │
│                                 │
│ ↓Quit↓          ↓Continue↓      │
└─────────────────────────────────┘
```

xxxxxx stands for ballot, test, or survey. You must use forms designed for SelfScore use. Remove the form from the output tray. Press **Continue** to scan a key form that is on the approved list.

```
┌─────────────────────────────────┐
│ Feed answer sheet or            │
│ results sheet                   │
│                                 │
│ ↓Quit↓            ↓Start↓       │
└─────────────────────────────────┘
```

You are in test scoring mode and the scanner is expecting an answer sheet or a results sheet. Press **Start** to continue. Press **Quit** to quit the session and erase the data.

```
┌─────────────────────────────────┐
│ Feed Ballot Key                 │
│                                 │
│ ↓Quit↓            ↓Start↓       │
└─────────────────────────────────┘
```

You have entered ballot mode and the scanner is expecting a key. Feed a properly filled out key and press **Start**. Press **Quit** to quit the session and erase the data.

Feed ballot sheet or results sheet ↓Quit↓ ↓Start↓	Your ballot key has been accepted. To continue, load ballot sheets or ballot results sheets and press **Start**. Press **Quit** to quit the session and erase the data.
Feed Detailed Test Analysis sheet or answer sheet. ↓Quit↓ ↓Start↓	Some of the results have been printed but not all the results. You can scan more of the Detailed Test Analysis sheets or answer sheets. If you choose to scan answer sheets, remember that you will need to reprint the results from scratch, since there will be changes to the totals (with the addition of more answer sheets).
Feed test key ↓Quit↓ ↓Start↓	You have entered test scoring mode and the scanner is expecting a key. Feed a properly filled out key to continue. Press **Quit** to quit the session and erase the data.
Feed Optional Letter Grade Key, or answer sheet ↓Quit↓ ↓Start↓	You are in test scoring mode. Feed a letter grade key or an answer sheet. Press **Start** after you have loaded the sheet(s). Press **Quit** to quit the session and erase the data.
Feed survey key ↓Quit↓ ↓Start↓	You have entered survey mode and the scanner is expecting a key. Feed a properly filled out key and press **Start** to continue. Press **Quit** to quit the session and erase the data.

```
┌─────────────────────────────────┐
│  Feed survey sheet or           │
│  results sheet.                 │
│                                 │
│  ↓Quit↓              ↓Start↓    │
└─────────────────────────────────┘
```

Your survey key has been accepted. To continue, load survey sheets or survey results sheets and press **Start**. Press **Quit** to quit the session and erase the data.

```
┌─────────────────────────────────┐
│  Group ID is invalid.           │
│                                 │
│  ↓Quit↓          ↓Continue↓     │
└─────────────────────────────────┘
```

The completed ballot or survey has a Group ID that does not match the group(s) defined on the key. Fix the sheet, press **Continue**, and re-scan it.

```
┌─────────────────────────────────┐
│  Item marked wrong.             │
│  Mark one or all.               │
│  Change & re-feed key           │
│                                 │
│  ↓Quit↓          ↓Continue↓     │
└─────────────────────────────────┘
```

A question on the test has more than one response marked. If you want to score all responses as being correct, mark all the responses for that question. If you mistakenly marked an extra response for a test question, erase it. In either case, press **Continue** to re-scan the sheet.

```
┌─────────────────────────────────┐
│  xxx items marked do            │
│  not match Item Count.          │
│  Change & re-feed key           │
│                                 │
│  ↓Quit↓          ↓Continue↓     │
└─────────────────────────────────┘
```

Check the number of items you've marked and change the Item Count grid. Then press **Continue** and re-scan the sheet.

```
┌─────────────────────────────────┐
│  Key ID has already             │
│  been used.                     │
│  Change & re-feed key           │
│                                 │
│  ↓Quit↓          ↓Continue↓     │
└─────────────────────────────────┘
```

You've already scanned a key with this ID marked. Choose a different Key ID. Then press **Continue** and re-scan the key sheet.

```
┌─────────────────────────────────┐
│  Key ID is complete,            │
│  # of Keys required.            │
│  Change & re-feed key           │
│                                 │
│  ↓Quit↓          ↓Continue↓     │
└─────────────────────────────────┘
```

There must be a number in the # of Keys grid unless you marked the Key ID grid by mistake. Fix the sheet and press **Continue** to re-scan it.

Key Sheet does not match previous key. ↓Quit↓ ↓Continue↓	The form number of the key sheet is not the same as the first key that was scanned. Make certain you are using the same form type for all the keys and answer sheets. Press **Continue** to scan an appropriate key.
Mark 1 Score Option. Change & re-feed key ↓Quit↓ ↓Continue↓	One, and only one, of these features must be marked: Correct Answer, Mark X, Total Only. Fix the sheet and press **Continue** to re-scan it.
Mark at least one Grading Percentage. Change & re-feed key ↓Quit↓ ↓Continue↓	There are no marks on the Optional Letter Grade Key sheet. If you want to report grades, you need to complete at least one of the Grading Percentage Break grids. Then press **Continue** and re-scan the sheet.
Mark either # or % of Students/Respondents. Change & re-feed ↓Quit↓ ↓Continue	The sheet must have 2 fields marked: the Group ID grid and how to print results (by number of respondents or percentage of respondents). Fix the sheet, press **Continue**, and re-scan it.
Mark either # or % of Incorrect. Change & re-feed ↓Quit↓ ↓Continue↓	Choose how you want results printed (by the number incorrect or the percent incorrect) and mark it on the results sheet. Press **Continue** to re-scan the sheet.

xxx marks do not match Mark Count. Change & re-feed key
↓Quit↓   ↓Continue↓

The number in the Mark Count grid (or on some forms, the For Office Use Only grid) does not match the number of bubbles marked on the form. Re-count the marks you've made (excluding this grid) and re-mark the correct total. Then press **Continue** to re-scan the sheet.

Missing marks in % of Total Score. Change & re-feed key
↓Quit↓   ↓Continue↓

The Points Earned grid is complete on the key, but the % of Total Score grid is not. Mark the % of Total Score grid with the percentage of the total score that the performance assessment represents. Make sure all columns are marked, even if you must zero-fill ones on the left. Then press **Continue** to re-scan the key.

Missing marks in Points Earned. Change & re-feed
↓Quit↓   ↓Continue↓

The Points Earned grid is not filled out completely on the answer sheet. Complete the grid. Press **Continue** and re-scan the sheet.

Missing marks in Points Earned. Change & re-feed key
↓Quit↓   ↓Continue↓

The % of Total Score grid is complete on the key, but the Points Earned grid is not. Mark the Points Earned grid with the number of possible points. Then press **Continue** to re-scan the key.

MULTIPLE SHEETS FED CLEAR PATH - REFEED
↓START↓

Clear all sheets from the transport bed. Place the sheets you tried to scan back in the input tray. Adjust the paper guide. Press **START** to rescan the sheets. Refer to the Operator's Guide for your scanner for assistance.

```
┌─────────────────────────────────┐
│ Percentage for xx               │
│ must be less than yy            │
│ Change & re-feed key            │
│                                 │
│ ↓Quit↓          ↓Continue↓      │
└─────────────────────────────────┘
```

The marks in each of the Grading Percentage Breaks grids are not descending. (For example, if the cutoff for A is 92, but for A- is 95, this error message will be displayed.) Check each of the Grading Percentage Breaks grids to make sure that the percentage breaks from A+ to F are descending. Then press **Continue** to re-scan the sheet.

```
┌─────────────────────────────────┐
│ Percentage for xx               │
│ has too many marks.             │
│ Change & re-feed key            │
│                                 │
│ ↓Quit↓          ↓Continue↓      │
└─────────────────────────────────┘
```

The Raw Score grid has multiple marks. Make sure there is only one mark per column of the grid. Then press **Continue** to re-scan the sheet.

```
┌─────────────────────────────────┐
│ Perform Ballot Tally            │
│                                 │
│ ↓Quit↓          ↓Continue↓      │
└─────────────────────────────────┘
```

This message is asking if you want to enter ballot tally mode. Press **Yes** to tally ballots. Press **No** to advance to the next mode.

```
┌─────────────────────────────────┐
│ Perform Survey Tally            │
│                                 │
│ ↓No↓              ↓Yes↓         │
└─────────────────────────────────┘
```

This message is asking if you want to enter survey tally mode. Press **Yes** to tally surveys. Press **No** to advance to the next mode.

```
┌─────────────────────────────────┐
│ Perform Test Scoring            │
│                                 │
│ ↓No↓              ↓Yes↓         │
└─────────────────────────────────┘
```

This message is asking if you want to enter test scoring mode. Press **Yes** to score tests. Press **No** to advance to the next mode.

```
┌─────────────────────────────────┐
│ Power Down                      │
│                                 │
│ ↓No↓              ↓Yes↓         │
└─────────────────────────────────┘
```

This message is asking if you want the scanner to enter sleep mode. Press **Yes** to enter sleep mode. Press **No** to remain on.

Processing Sheet. ↓Quit↓	Wait until the next message appears and follow the instructions. Press **Quit** if you want to interrupt the sheets you are scanning.

Points Earned marked so % of Total Score must be marked. Change & re-feed key ↓Quit↓ ↓Continue↓	The Points Earned grid is complete on the key, but the % of Total Score grid is not. Mark the % of Total Score grid with the percentage of the total score that the performance assessment represents. Then press **Continue** to re-scan the key.

Results will be lost Quit? ↓No↓ ↓Yes↓	You have pressed Quit. The scanner is informing you that the data from your current scanning session will be lost if you continue. Press **Yes** to quit and erase the data. Press **No** to continue with your current session.

Sheet did not Feed Check Input path ↓Start↓	Move the sheets up in the input tray. Align the sheets with the edge of the input tray making sure they are as close as they can be to the front of the scanner. Slide the paper guide up against the sheets. Press **Start** to re-scan the sheets. Refer to the Operator's Manual for your scanner for assistance.

Sheet did not Feed Chk Sheet Deflector ↓Start↓	Press down firmly on the sheet deflector so that it is tightly latched. Press **Start** to re-scan the sheet. Refer to the Operator's Guide for your scanner for assistance.

Sheet Skewed Re-feed Last Sheet ↓Start↓	Remove the sheet from the scanner. If it is torn or damaged, repair it or recreate the sheet. Place the sheet in the input tray. Adjust the paper guide and press **Start**. Refer to the Operator's Guide for your scanner for assistance.
Sheet too thin See Manual ↓Start↓	The last sheet scanned is too thin or the first sheet scanned was a multi-feed. Check to ensure that all sheets have been scored correctly. Press **Start** to re-scan any unscanned sheets.
Survey does not match key sheet. ↓Quit↓ ↓Continue↓	The survey sheet form number is not the same as the key. Put this sheet aside. Press **Continue** and scan the correct form.
The Item Count grid must be complete. Change & re-feed key ↓Quit↓ ↓Continue↓	Complete the Item Count grid with the number of marks made on the key. Then press **Continue** to re-scan the key sheet.
TM count error ↓Quit↓ ↓Continue↓	There is probably a stray pencil mark made in the timing mark area of the sheet. Check the column of black marks along the edge of the sheet and erase any stray pencil marks. Then press **Continue** to re-scan the sheet.
Too many marks in Item Count grid. Change & re-feed key ↓Quit↓ ↓Continue↓	Check the number of items on the key sheet. Make sure that number is marked in the Item Count grid. Erase any multiple marks. Then press **Continue** to re-scan the sheet.

```
Too many marks in
Key ID grid.
Change & re-feed

↓Quit↓          ↓Continue↓
```

Only one Key ID can be marked on the Key ID grid. Fix the sheet. Then press **Continue** to re-scan it.

```
Too many marks in
# of Keys grid.
Change & re-feed key

↓Quit↓          ↓Continue↓
```

Only one mark can be made in the # of Keys grid. Fix the sheet. Then press **Continue** to re-scan it.

```
Too many marks in
% of Total Score.
Change & re-feed key

↓Quit↓          ↓Continue↓
```

Only one mark per column can be made in the % of Total Score grid. Fix the sheet. Then press **Continue** to re-scan it.

```
Too many marks in
Points Earned.
Change & re-feed key

↓Quit↓          ↓Continue↓
```

Only one mark per column can be made in the Points Earned grid. Fix the sheet. Then press **Continue** to re-scan it.

```
Waiting for Computer

↓Quit↓
```

The attached computer has sent a message to the scanner that it is ready to start communications. Now the scanner is waiting for an initiate code from the computer before it can transmit data.

NOTES

In this chapter:

7

Chapter 7:
Product Support and Services

Registering Your Product

Outside the U.S.   Contact your local sales agent for product support, registration, and update information.

Within the U.S.   Product registration ensures timely notification of downloadable updates and upgrades which are provided to you as a benefit of an active software subscription or hardware support agreement.

Online registration is required for:

- Notification of downloadable updates and upgrades or drivers and utilities

- Downloading of the updates and upgrades for drivers and utilities

- Online support requests

NOTE: If you are entitled to updates or upgrades, you may obtain them on physical media for an extra fee.

Online Registration

1. Go to the Scantron Web site at **www.scantron.com.**

2. Select **Support→Product Registration**. The **Product Registration** page will appear.

3. Follow the on-screen instructions.

Printed Documentation

Your Scantron scanner comes with printed documentation for the scanner and the included software. The documentation set provides information on packaging, installation, setup, operation, and configuration for users and system administrators.

In addition, copies of most printed documentation, in PDF format, are also available on the CDs that came with your scanner.

The Help System

Your Scantron SelfScore scanner does not come with a Help system specifically for the hardware. However, the Scantron software products that you use with your scanner (if any) each come with a Help system that includes comprehensive information that may help you with your hardware issues. Use the Index and Search features in the software Help system to find information about how your scanner and software work together.

If you are facing a hardware issue, be sure to check the software Help system for information before calling Scantron Support (within the U.S.) or your local sales agent (outside the U.S.).

Training

Outside the U.S.   Contact your local sales agent for training information.

Within the U.S.   While Scantron does not offer training specifically for your scanner hardware, we do offer training on ScanTools Plus software.

For more information or to sign up for training:

- Visit our Web site at **www.scantron.com,** or
- Call Scantron Training at 1-800-336-3426 (extension 6123).

Internet Resources

Go to **www.scantron.com** to access the Scantron Customer Support Web site. It gives you access to the following:

Outside the U.S.   • Frequently Asked Questions (FAQs) with answers about scanning hardware and software products.

Within the U.S.   • Online registration of your scanner or software product with Scantron Customer Support. This ensures you of timely notification of product updates and upgrades.

   • Frequently Asked Questions (FAQs) with answers about scanning hardware and software products.

   • Software updates (including driver and utility updates for scanners) that you can download if you have a current software subscription or hardware support agreement.

NOTE: New licensees of Scantron software products have access to these support resources. Continued access to some of these resources requires a continuing software subscription support agreement.

Ordering Supplies

Outside the U.S.   Contact your local sales agent to order supplies.

Within the U.S.   We offer quick, easy access to supplies and user manuals for your Scantron scanner and software. You can order online or by phone or fax:

Online	**Phone or Fax**
Scantron Online Store **www.scantronstore.com** Click **Supplies**	Scantron Supplies Business Center 1313 Lone Oak Road Eagan, MN 55121 **Phone** 1-800-328-6290 **Fax** 1-651-683-6230

NOTE: Promotional offers are typically available for online purchases only.

Ordering Forms and Print Services

Outside the U.S. Contact your local sales agent for forms and print services information.

Within the U.S.

Standard Forms

Scantron has a large variety of standard forms to meet your data collection needs. For an illustrated list of the forms available and to order online, visit the Web site below. To order by phone, contact Scantron Print Services at the numbers shown below.

Online	**Phone or Fax**
Scantron Online Store www.scantronstore.com	Scantron Print Services **Phone** 1-800-722-6876 **Fax** 1-949-639-7710

Custom Form Design and Other Services

In addition to standard forms, Scantron Print Services can also assist with custom form design. Once you have an idea of what the project entails, call Scantron Print Services at the numbers below to discuss the project with a Customer Service Representative (CSR). Scantron CSRs have the expertise needed to ensure that the job gets done right, and with the value added features that you desire.

Other services available through Scantron Print Services include background form images, merge template creation, high volume merge printing projects, and delivery and fulfillment services.

Phone or Fax

Scantron Print Services
Phone 1-800-735-2566
Fax 1-717-684-1300

Requesting Support

Outside the U.S.   Contact your local sales agent for support.

Within the U.S.   If you have questions about your scanner that are not answered by the printed documentation, the Help system, or **www.scantron.com**, call Scantron Customer Support.

When you call Scantron, an operator will ask you to describe your problem. The operator will then relay information about the problem to an analyst who will call you back as soon as possible. You can reach Customer Support from 8:00 A.M. to 5:00 P.M. Monday through Friday, your local time (except for Alaska and Hawaii where support is available through 7:00 P.M. CST).

Before calling:

1. Know the serial number of the product(s) you are calling about.

2. **Write down a description of your problem.** Include a sequence of the steps leading to the problem. Doing this ensures that you will have all the details you need when you talk to the analyst.

3. Note error messages that appear on your computer screen or scanner display panel.

4. Have a description of your hardware ready.

   • Computer, including processor and speed, amount of memory, disk size, available disk storage space, and operating system.

5. Have a description of your software ready.

   • The software you are using, the version numbers, and any additional modules that have been installed.

6. Be available with a phone at the scanner. This is so that the analyst will be able to guide you through the troubleshooting process.

Scantron Customer Support

Phone 1-800-338-5544 (U.S. only)

Scantron Customer Support can answer your questions about a variety of subjects, including:

- Installation and configuration
- Program features and operation
- Scanner and software troubleshooting
- Documentation and the Help system
- Fonts and graphics
- Software/hardware errors
- Laser printing forms
- ScanFlex and PrintFlex

Services

Outside the U.S.	Contact your local sales agent for services information.
Within the U.S.	A variety of services are available including custom data collection solutions, survey research services, equipment maintenance, equipment installation, network installation, custom training solutions, custom application development, database support, software support for custom applications, and consulting services.

For information on any of these services, contact **Scantron**:

Online	**Phone**
www.scantron.com	1-800-447-3269

NOTES

A

Appendix A:
Scantron SelfScore Forms

Scantron SelfScore scanners, use forms designed specifically for SelfScore scanners. This chapter explains how to view sample forms and how to order.

Viewing Sample Forms

To view samples of the available SelfScore forms, visit **www.scantronstore.com**. Select **Forms→SelfScore**.

4 Easy Ways to Order

Online

Visit **www.scantronstore.com** to view samples and place your order online.

Phone

Simply call 1-800-722-6876 (Monday through Friday) between the hours of 8:00 a.m. and 5:00 p.m. Central Standard Time and we will help you with your order.

Fax

Call 1-949-639-7710 to fax your order information. Rememer to include your contact information along with the order information.

Mail

Send your contact information (customer name, address, and telephone number) along with the order information (form number, quantity, and purchase order) to the following address:

Scantron Print Services
Attn: Standard Products
34 Parker
Irvine, CA 92618

Ink Read Option Exceptions

When using the ink read option, the scoring logic is the same, however the forms used must have the response positions printed in special shades of red that will not be "seen" by the scanner when scanned. The forms available for use with the ink read option are limited.

Some forms are not currently available for use with the ink read option:

- Optional Letter Grade
- General Test Item Analysis
- Frequency Distribution

B

Appendix B:
Positioning the Printers

This chapter describes how to position the printers so that they print correctly on the SelfScore sheets.

Procedure for Positioning the Printers

To print in the proper columns on the SelfScore sheets, the printers must be set at 1.6 and 4.3 inches from the guide (left) edge of the sheets.

To position the printers:

1. Unlatch the printer cover and remove it.

2. Notice the location of the cartridge holder that is inside the printer assembly. Also notice the ruler, the printer alignment mark, and the thumbscrew that sit beside the cartridge holder. These are the elements used to position the printer(s).
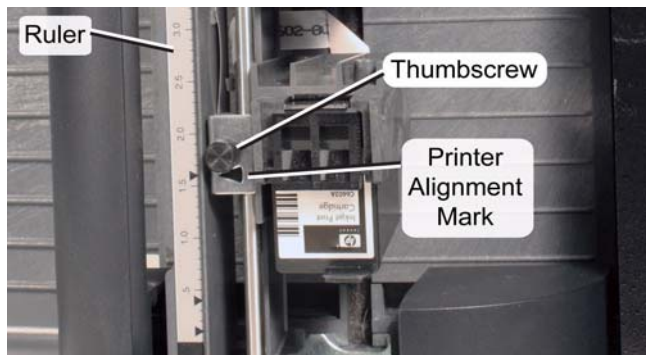
3. Check to see if the printers are aligned with positions 1.6 and 4.3. If not, proceed with the following steps.

4. Loosen (but do not remove) the thumbscrew on the printer closest to the front of the scanner until it can be easily moved.

5. Slide the printer so the arrow lines up with the number 1.6. Tighten the thumbscrew until you meet resistance. (It does not need to be screwed down tightly.)

6. Repeat steps 2 - 4 with the other printer, but align it with the number 4.3.

7. Place the cover back on the printer and close it so that it snaps into place.

NOTES

C

Appendix C:
Formulas

This appendix provides information on how the following formulas are calculated:

- Combined points earned

- Combined percent correct

Combined Points Earned

The Combined Points Earned is calculated and printed on answer sheets. The calculation basically weights the student's points earned on the assessment and combines that with the number that are correct on the scanner-scored test.

NOTE: Points Earned is called **Raw Score** on some test forms. Both terms refer to the total possible points for the subjective portion of the test on the key or the student's score for the subjective portion of the test on the answer sheet.

$$\text{Combined Points Earned} = \begin{array}{c} \text{(Number Correct[answer sheet])} \\ + \\ \text{(W} \times \text{(Points Earned[answer sheet]))} \end{array}$$

Where:

$$W = \frac{\text{(Item Count[key])} \times \text{(\% of Total Score[key])}}{\text{(Points Earned[key])} \times \text{(100 - (\% of Total Score[key]))}}$$

Combined Percent Correct

Combined Percent Correct is calculated and printed on answer sheets. It is calculated as follows:

$$\text{Combined Percent Correct} = \frac{(\text{Number Correct[answer sheet]})}{(\text{Item Count[key]})} \times (100 - (\% \text{ of Total Score})) + \frac{(\text{Points Earned[answer sheet]})}{(\text{Points Earned[key]})} \times (\% \text{ of Total Score})$$

NOTE: All calculations are rounded to the nearest percent using the following convention:

- percentage = or > .5, round up
- percentage < .5, round down

NOTE: Points Earned is called **Raw Score** on some test forms. Both terms refer to the total possible points for the subjective portion of the test on the key or the student's score for the subjective portion of the test on the answer sheet.

NOTES

Index

SelfScore Scanner

Welcome to the Scantron family of high performance scanners. The Scantron SelfScore scanner significantly reduces the time that you spend processing tests, surveys, or ballots.

With simple test scoring machine functionality and a robust integrated diagnostics system, Scantron SelfScore scanners make the job of scoring or tallying tests, surveys, and ballots quick and easy. This document guides you through the processes whether you own a data collection scanner with the SelfScore option, or a dedicated SelfScore machine.

For over 30 years, Scantron has been delivering high-accuracy test scoring and data collection tools designed to streamline your processes. Trust Scantron to continue this tradition and to provide you with a springboard to take advantage of emerging technologies.

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