

SEKONIC

*OPTICAL
MARK READER*

**Diagnostic Utility
For Windows
User's Manual**

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1. Introduction

Thank you for purchasing Sekonic's OMR.

This software is a utility tool for checking the operation of your OMR when it is connected to a personal computer by a USB cable.

Specialized knowledge of OMRs is necessary to use this software.

The OMR cannot scan marks properly if it is handled incorrectly.

This software is recommended for those who are familiar with OMRs. If you do not have such knowledge, please consult our technical support staff in advance.

Version number, which is described in the figure may be different.

2. System Requirements for the Software

System requirements for the software are as follows:

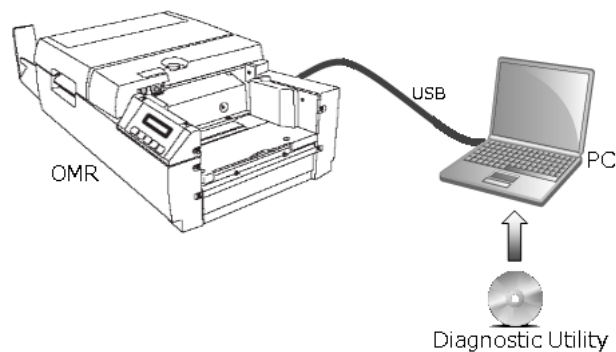


Fig1 Hardware Setup

- | | |
|--------------------------|--|
| (1) OS (*1) | : Microsoft Windows 8.1 (32-bit and 64-bit)
Microsoft Windows 10(32-bit and 64-bit) |
| (2) Monitor Resolution | : 640 by 480 or greater |
| (3) Connection Interface | : USB2.0 / USB3.0 |
| (4) Language | : English |
| (5) OMR | : SR-3500/6000/6500, SR-1800, SR-3500 HYBRID
SR-6500 HYBRID, SR-8000 HYBRID, SR-11000 |

(*1) When the Microsoft finished the support for the system, our support for these operation systems will be completed.

Microsoft and Windows are registered trademarks of Microsoft Corporation (U.S.A.) in the United States and other countries.

The other listed product names are registered trademarks or trademarks of Microsoft Corporation.

3. Program Components

(1) USB Device Driver

A device driver that transmits and receives data from the OMR through a USB cable.
Please use the “USB driver” in the CD-ROM.

(2) Library

Library software that controls communication between the OMR and a PC.
Install and use “OMRAPI.dll” in the CD-ROM.
(This will be installed at the same time as the diagnostic utility)

(3) Diagnostic Utility

The software is in this package.

By displaying the status of position sensors (paper-jam or not) or by displaying the mark density, it diagnoses whether the OMR’s mark scanning function is operating properly or not.

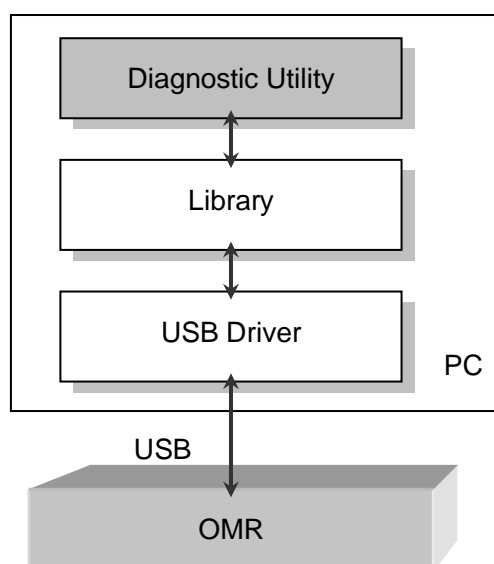


Fig.2 Program Components

3.1 Dll(Libraries)

4 DLL's(OMRAPI.DLL、SkDvSrSeries.dll、SkCommIo.dll、SkLibJpeg.dll) would be installed same time with Diagnostic Utility Software. These DLL's are installed in the followings folder.

Windows 10 / 8.1 (64-bit) : C:\Windows\SysWOW64
Windows 10 / 8.1 (32-bit) : C:\Windows\System32

4. Installation/Uninstallation

4.1 Installation

To install the software, launch the 'Setup.exe' program in the "CD-Rom \Utility \Setup" folder and follow the prompts on the screen.

[DiagnosticUtilityE] or [DiagnosticUtilityE.msi]

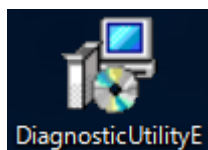


Fig.3 Icon

Click Icon of DiagnosticUtilityE, and Proceed to NEXT

Fig.4 Install

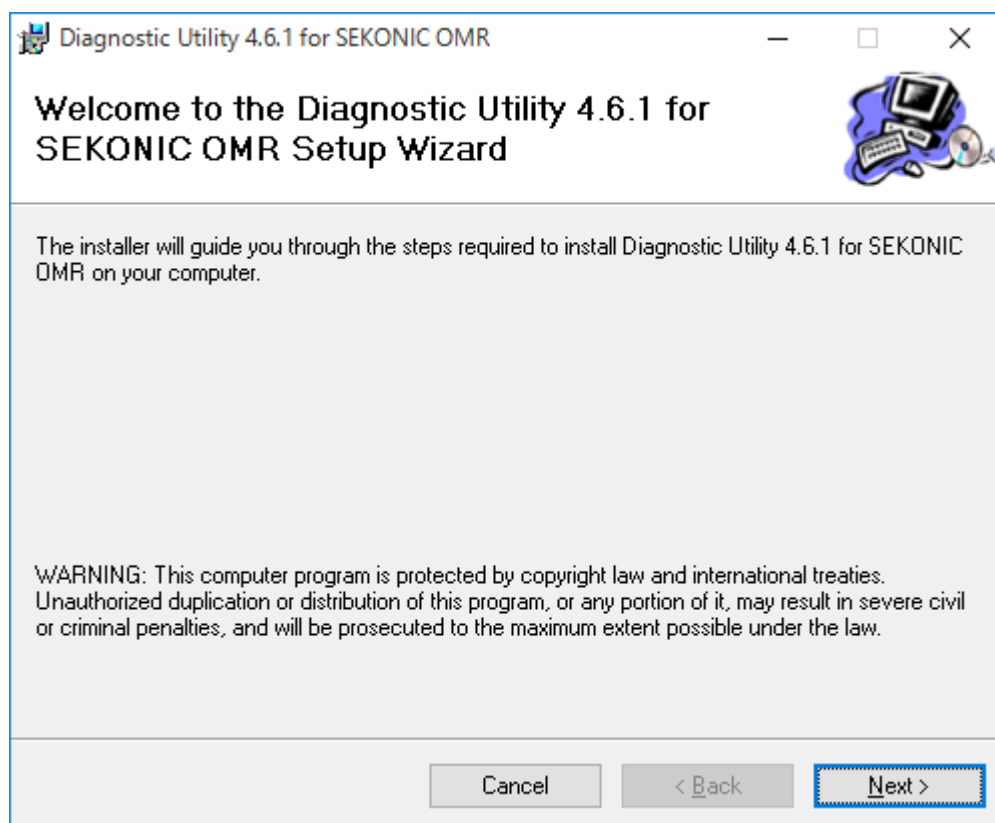


Fig.4 Install

- Click 「Allow」 or 「Yes」 in case appear the followings

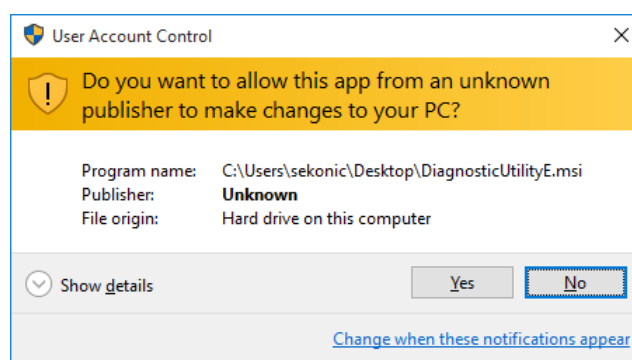


Fig.5 User Account Control

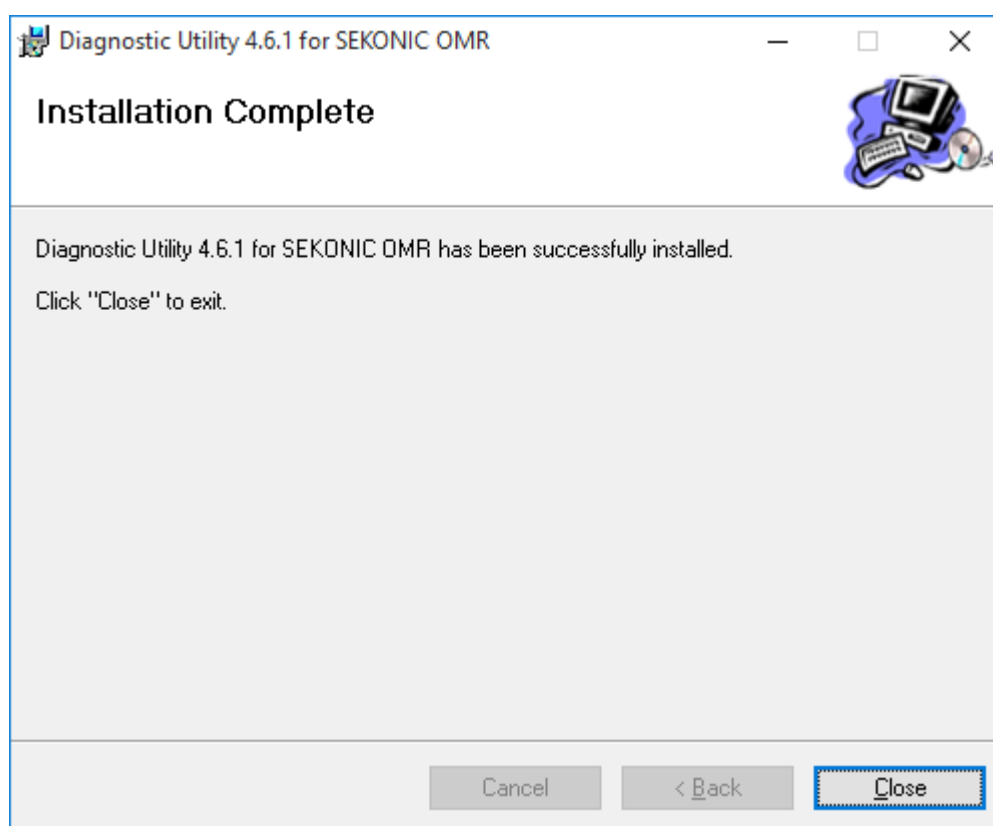


Fig.6 Complete Installation

4.2 Uninstallation

Open Start menu, and click「Settings」-「System」-「Apps & features」
Choice 「Diagnostic Utility *** for SEKONIC OMR」 and click「uninstall」
***:Version number

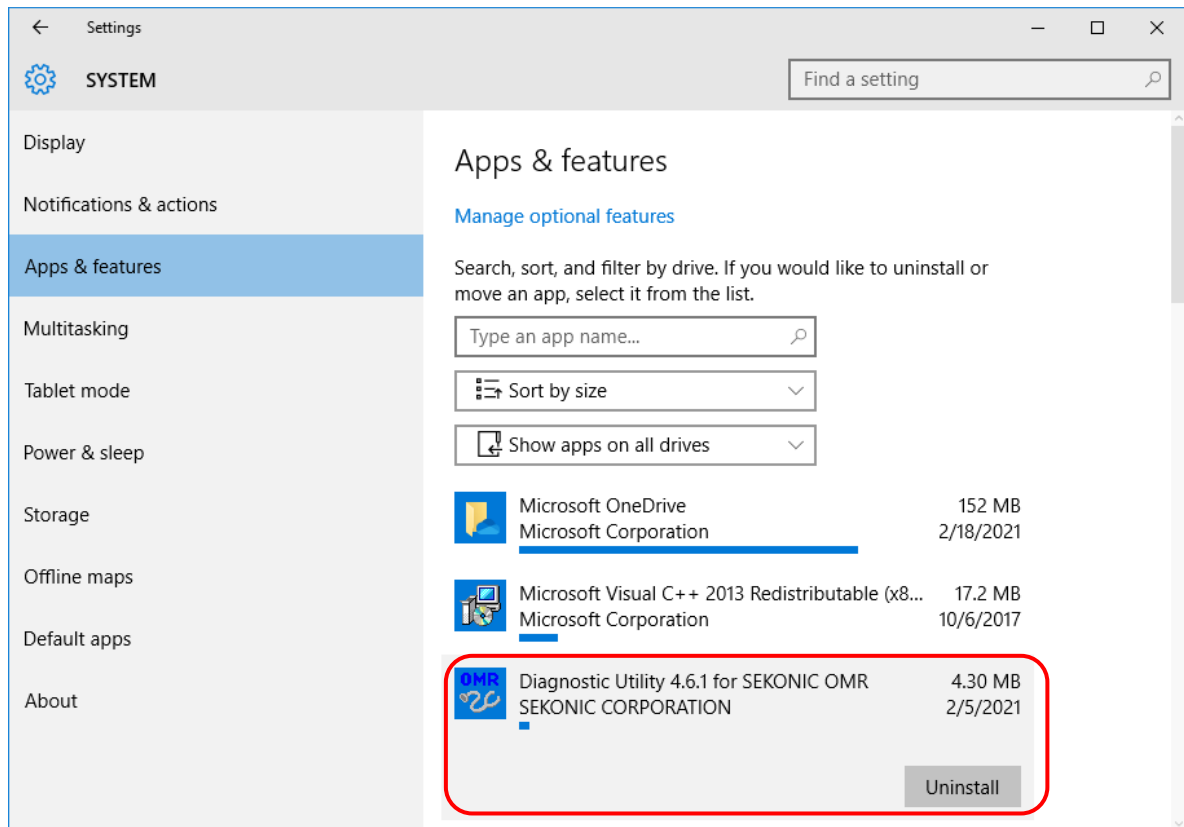


Fig.7 Uninstall Program

- Click 「Allow」or「Yes」in case appear the followings

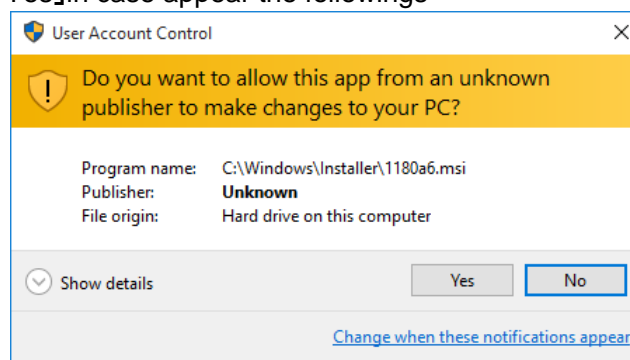


Fig. 8 User Account Control

5. Starting Up the Diagnostic Utility

This software does not support communication with multiple OMRs.

When the software is starting up, it performs the following procedure before displaying a diagnostic operating screen.

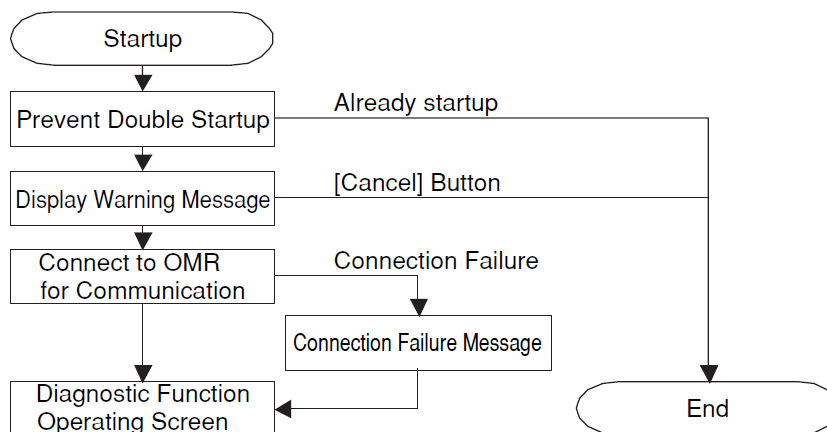


Fig.9 Startup

Start up the software using the Start Menu .

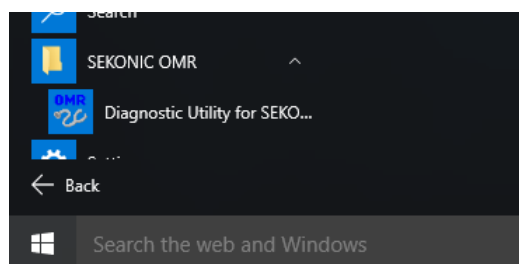


Fig.10 Start Menu

5.1 Warning Message

In the beginning, you will see a warning message for users.

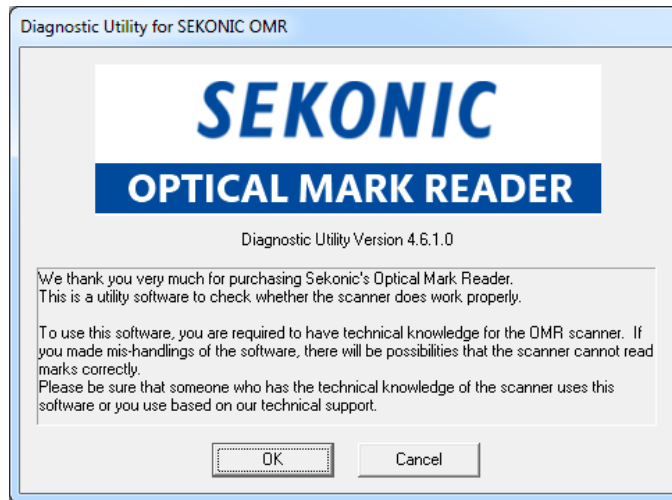


Fig.11 Startup Warning Message

If you decide to run the diagnostic utility after reading this message, click the “OK” button.
If you decide to discontinue, click the “Cancel” button.

5.2 Establishing Communication

Connect to the OMR before displaying the diagnostic operating screen.
If you fail to connect, you will see the following message.

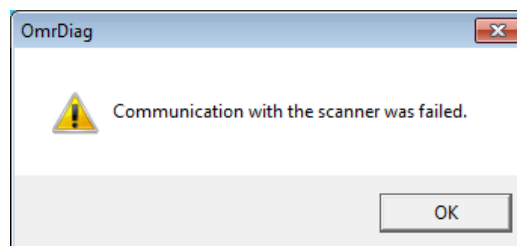


Fig.12 Connection Failure Message

If you click the “OK” button, the diagnostic operating screen will be displayed.

* If you fail to connect, you can re-connect by pressing the “Connect” button under “Single Operation”

on the diagnostic operating screen.

* In case of connection failure, please check the following:

Is the OMR turned on?

Is the cable connected correctly?

Is the USB driver installed properly?

6. List of Diagnostic Functions

This software can perform the following eight diagnostic functions:

- (1) Status display
Displays ON/OFF status of all the OMR's position sensors; the scan setting of OMR; and the F/W version/unit serial number.
- (2) Mark density
Scans a mark sheet, then displays the mark density.
- (3) Reading comparison test
Scans an original mark sheet and another mark sheet with the same mark pattern, then displays a comparison between the two.
- (4) Output display for position sensor
Displays the output value of position sensors.
- (5) Individual operation
Conducts single operation for a visual check of the document feeder, motors and solenoids.
- (6) Command interface
Transmits an inputted command and its parameter to OMR, then displays the response.
- (7) Printer Controls
Control printer configuration, acquisition, initialization and data feed settings.
The printer must be connected in order for these controls to function.
- (8) Bar Code Reader Controls
These utilities allow you to adjust the settings, acquire values for, and initialize the bar code reader.
They also allow you to read bar codes and eject paper.
These utilities can only be used when the bar code reader unit is connected.
- (9) Reading
Read OMR forms and create the mark data, Data can be outputted as CSV format.
SR-3500Hybrid or SR-6500Hybrid can save the Image data also.

7. Diagnostic Operating Screen

In this software, you can go to each diagnostic operating screen by clicking the Tab .
After startup, you will see the following window:

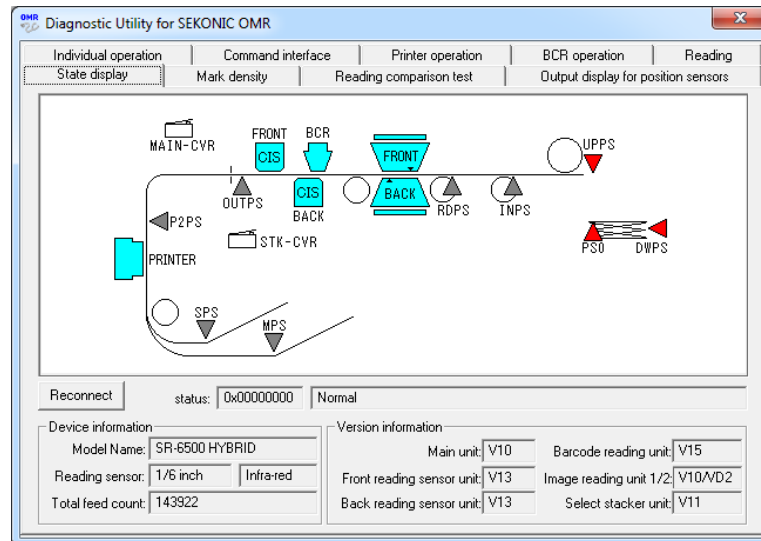


Fig.13 Diagnostic Operating Screen (regular)

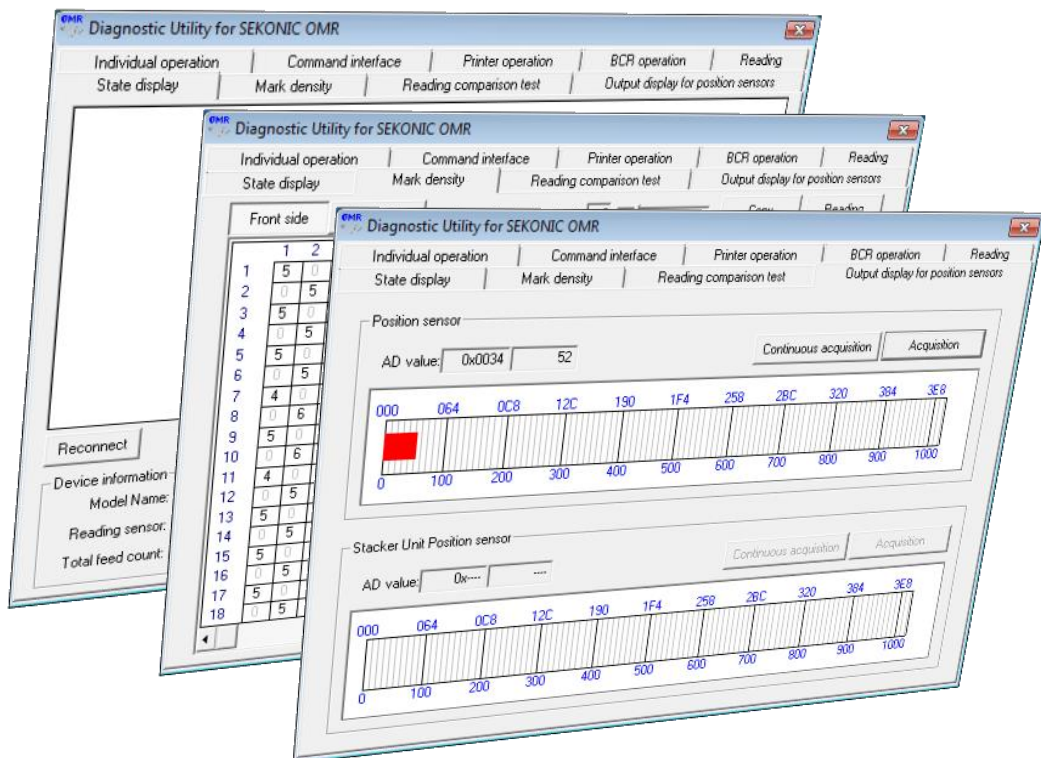


Fig.14 Image of Switching Screens

7.1 Position Sensor / Unit Status Display

This function graphically displays ON/OFF status of all of the OMR's position sensors. It displays "device information" (machine/sensor type) and "version information" (firmware version of each unit) in the boxes at the bottom of the screen.

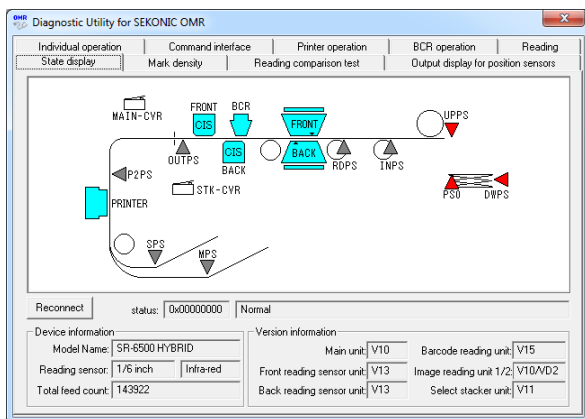


Fig.15 ON / OFF Status of the Position Sensors

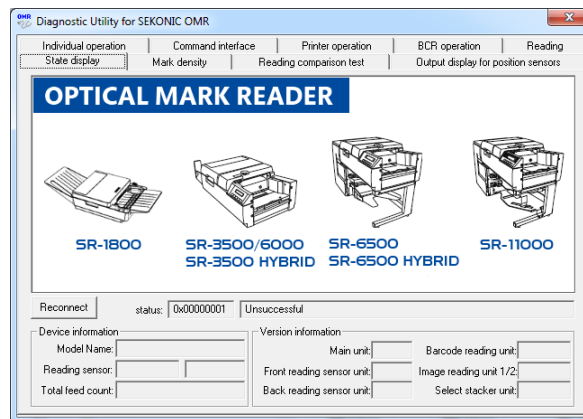


Fig.16 Acquisition Failure

If you fail to connect at startup, you will see “ Fig.16 Acquisition Failure ” on the screen.

7.2 Sheet Scanning and Mark Density Display

This function scans a mark sheet, then displays the mark density.

Use this function to check the mark density of the marks that have been entered when the OMR is not scanning the marks accurately.

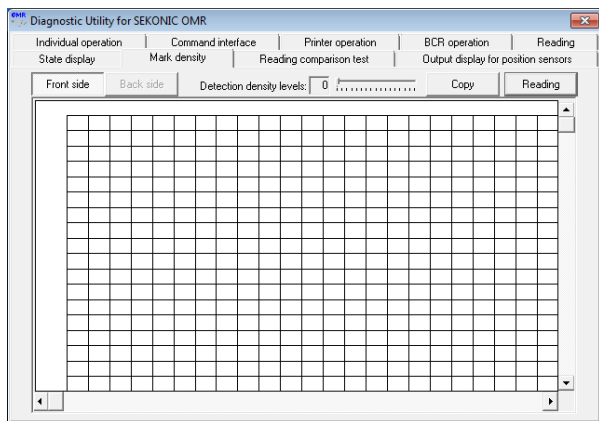


Fig.17 Mark Density Display
(right after startup)

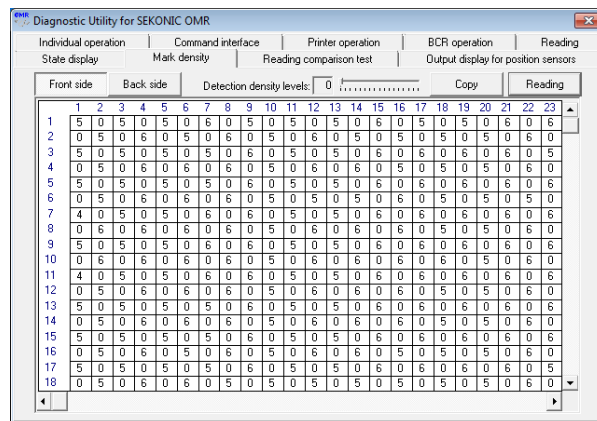


Fig.18 Mark Density Display
(after scanning)

“Front/Back side” button

Switches between the two sides of the document and displays the mark density.

“Copy” button

The mark density which it is as a result of reading is copied in a clipboard.

“Reading” button

Scans a mark sheet, then displays the mark density.

A dialogue box appears to display an error message if there is an error during sheet-feeding.

“Detection density levels” slider

Changes the font color of the numbers (0-16) showing the mark density when you change the mark sensitivity level.

Mark density that is below the set mark density level is displayed in gray.

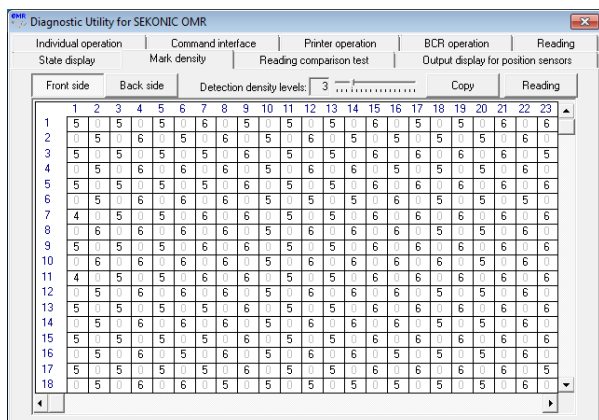


Fig.19 Mark Sensitivity Level Change

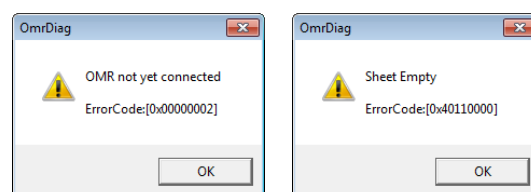


Fig.20 Error Message Samples

7.3 Scanning Result Comparison

This function scans an original mark sheet and another mark sheet with the same mark pattern (target), then displays a comparison between the two.

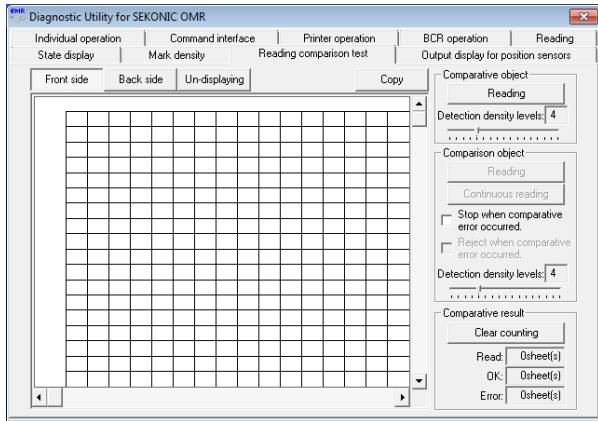


Fig.21 Comparison Test
(right after startup)

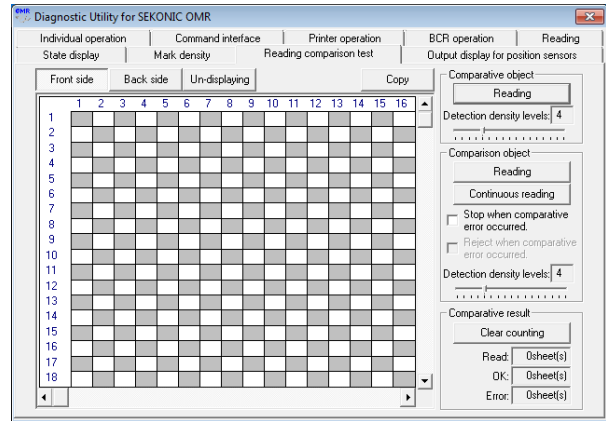


Fig.22 Comparison Test
(after scanning the original)

“Copy” button

The mark density which it is as a result of reading is copied in a clipboard.

[Comparative object]

“Reading” button

Scans an original mark sheet and displays the background of the mark in gray if its density level is higher than or equal to the set mark sensitivity level.

“Detection density levels” slider

Adjusts the degree of mark sensitivity for the original data.

[Comparison object]

“Reading” button

Scans one mark sheet, compares the results, and counts.

Displays the density level data numerically in the cells and compares the presence of the marks with that of the original.

The results which are different from the original are displayed in red.

“Multiple target scan” button

Scans mark sheets successively, compares the results, and counts.

For each mark sheet, it displays the sensitivity level data numerically in the cells and compares them with that of the original.

The results which are different from the original are displayed in red.

“Stop when Comparative error occurred” check box

Stops the next scan if the data is different from the original during the successive scan.

“Detection density levels” slider

Adjusts the mark sensitivity level from the target’s data.

It does not affect the results if you change the level after the scan.

“Clear counting” button

Clears sheet counts of Scanning/OK/Error.

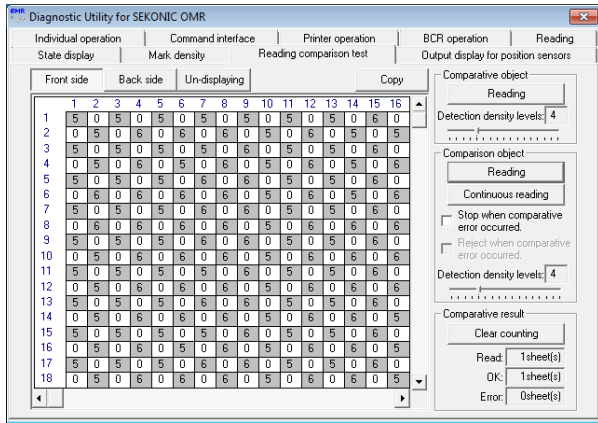


Fig.23 Comparison Result (OK)

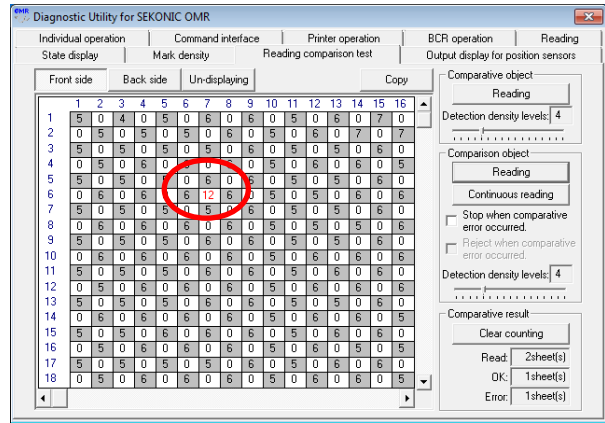


Fig.24 Comparison Result (comparison error)

7.4 Output Display for Position Sensor

This function displays the current output value of the position sensors.

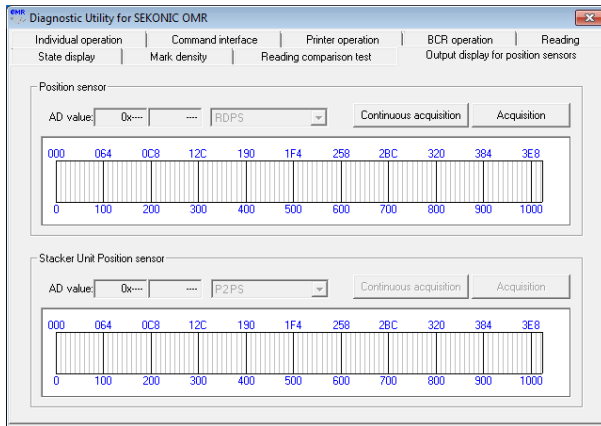


Fig.25 Output Display for Position Sensor
(right after startup)

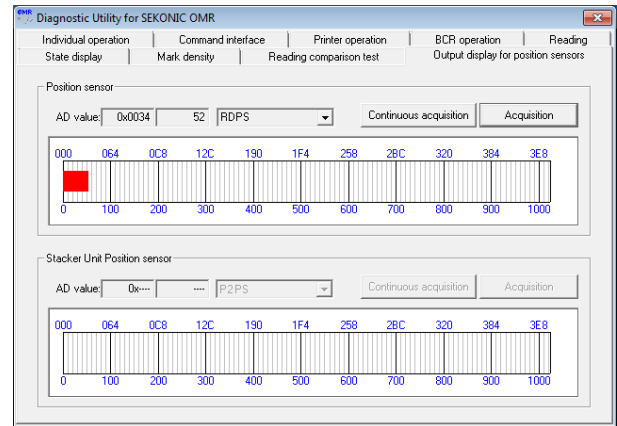


Fig.26 Output display for Position Sensor

“Continuous Acquisition” button

Continuously acquires the output value of the position sensors and displays it on the screen.

“Acquisition” button

Acquires the output value of the position sensors once and displays it on the screen.

Stacker “Continuous Acquisition” Button

Continuously gets and displays stacker unit position sensor output values.

This utility can only be used when the stacker unit is connected.

Stacker “Acquire” Button

Gets and displays stacker unit position sensor output values once only.

This utility can only be used when the stacker unit is connected.

7.5 Individual Operation

This function establishes and resets communication with OMR.

It conducts single operation of the mark sheet feeding, motors and solenoids.

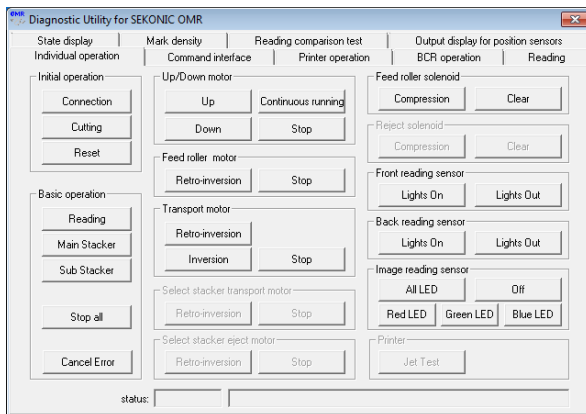


Fig.27 Individual Operation (right after startup)

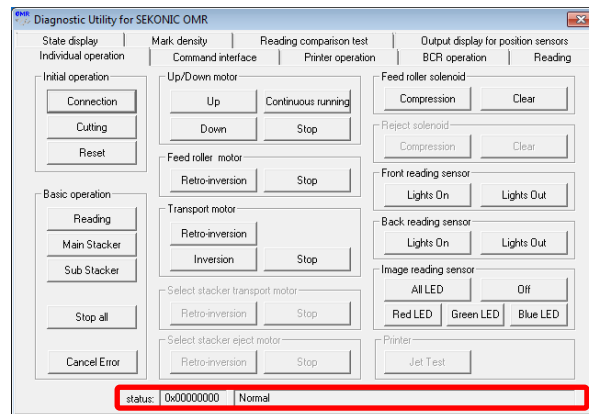


Fig.28 Individual Operation

The 'status' box in the bottom of the screen displays the results of the operation.

* This function can make the PC “Establish / Cut off Communication with OMR,” but disconnection will cause the other diagnostic functions to stop.

If you cannot establish communication with OMR when starting up the software, or if you disconnect from OMR using this function, you must press the “connection” button.

※(Fig.27, Fig.28 are for SR-3500 HYBRID)

7.6 Command Interface

When you input a command and its parameter, this function transmits the data to the OMR and displays the response.

Using this function, you can transmit all commands prepared in the OMR.

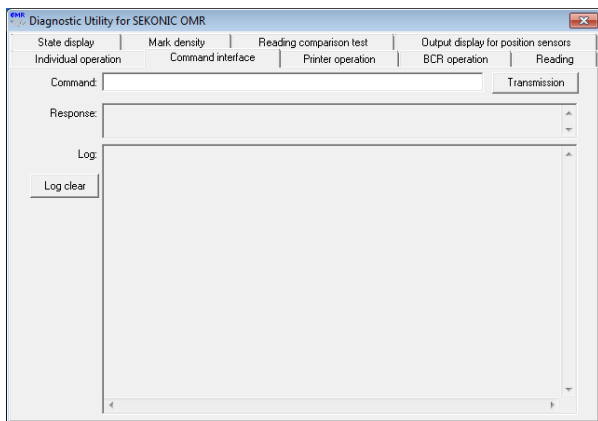


Fig.29 Command Communication
(right after startup)

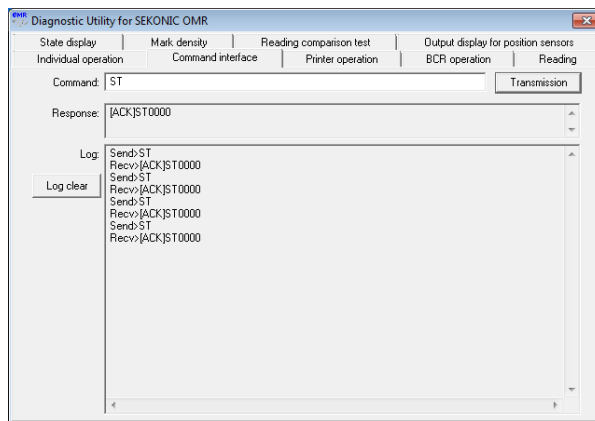


Fig.30 After Command Communication

In the “Command” box, input a command and its parameter you would like to send. Clicking the “Transmission” button will transmit the character string entered to the OMR. The screen displays the “Response” sent from the OMR.

7.7 Printer Function Controls

This function controls printer configuration, acquisition, and initialization settings. It also controls printing under a given setup.

This function can only be used if printer unit and stacker unit are connected.

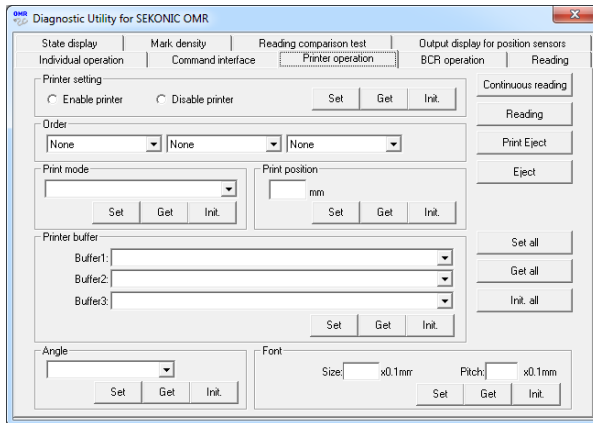


Fig.31 Printer Control (right after startup)

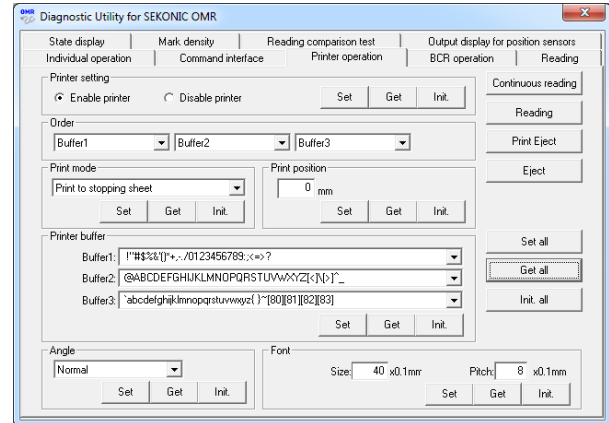


Fig.32 After Acquiring Setup Values

“Printer Control Settings”

Enables or disables printer controls.

“Continuous reading” button

Sets the print order, then continuous reading and prints.

“Reading” button

Sets the print order, read, and print.

“Print Eject” button

Sets the print order and signals the printer to print data onto the sheets in position.

“Eject” button

Ejects a stalled sheet.

“Set All” “Get All” “Initialize All” button

Controls print mode, position, buffer, angle, and font settings, acquisition, and initialization all at once.

“Set” “Get” “Initialize” button

Individually controls print mode, position, buffer, angle, and font settings, acquisition, and initialization.

7.8 Bar Code Reader Function Controls

These utilities allow you to adjust the settings, acquire values for, and initialize the bar code reader. They also allow you to scan bar codes.

These utilities can only be used when the bar code reader unit is connected.

This function cannot be used in SR-8000HYBRID.

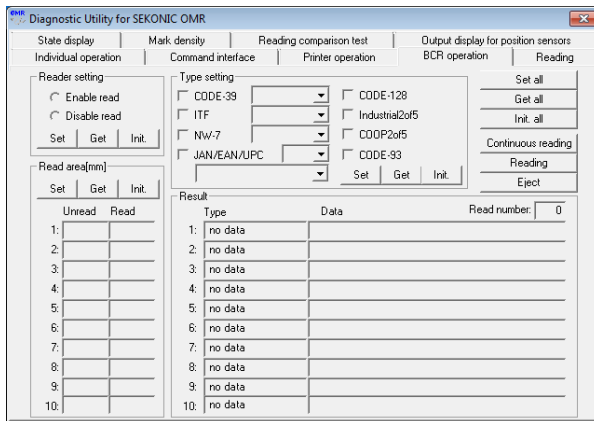


Fig.33 Bar Code Reader Controls
(right after startup)

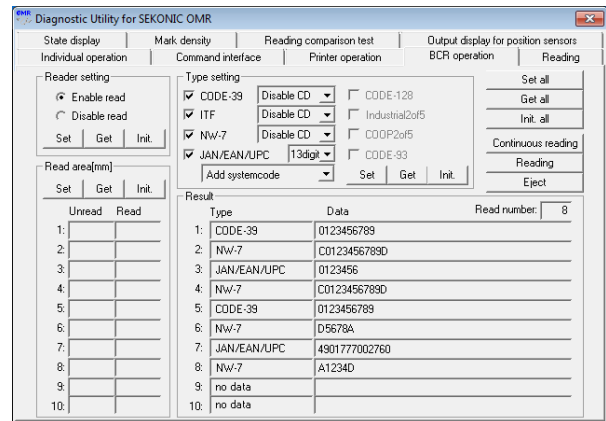


Fig.34 After Acquiring Setting Values

“Set Scanner”

Turns the bar code reader on or off.

“Set Scan Range”

Sets the scannable range.

“Set Scan Type”

Sets the type of bar code to be scanned.

Allows you to set the output display mode and check digit by bar code type.

“Scan Results”

Displays the results of a scanned bar code.

Data are listed with bar code type.

“Continuous Scan” Button

Continuously scans and displays bar code data.

“Scan” Button

Scans and displays bar code data.

“Eject” button

Ejects a stalled sheet.

“Configure/Acquire/Initialize All” Button

Sets the scanner, scan range, and bar code type, acquires values, and initializes all at once.

“Configure/Acquire/Initialize” Button

Sets the scanner, scan range, and bar code type, acquires values, and initializes one function at a time.

7.9 Reading

Read OMR forms and create the mark data, Data can be outputted as CSV format. SR-3500Hybrid or SR-6500Hybrid can save the Image data also.

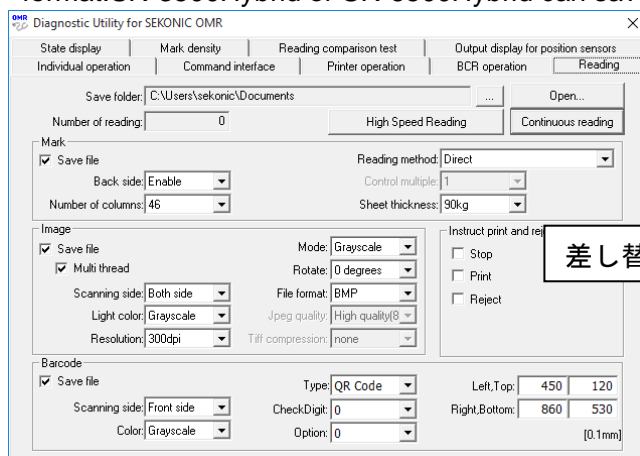


Fig.35 Reading controls

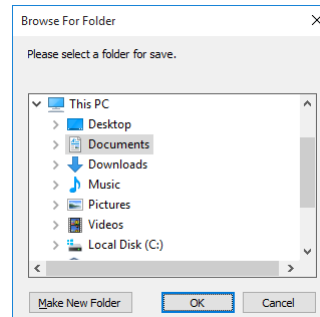


Fig.36 Save display

「Save Folder」

Show the folder Data files are saved. Click “...”button to change the direction of save folder

「Number of reading」

Reading counter. Count would start 0 when click [Reading] button everytime

「Open」button

Open the folder files is saved

「High Speed Reading」Button (only SR-11000, SR-8000HYBRID)

High Speed Continuously reading start

「Continuous Reading」Button

Continuously reading start

「Mark」setting

Click 「Save file」 and can be change the contents, and save mark data

「Image」setting

Click「Save file」 and can be change the contents, and save Image data by JPG/TIF.

These compression, Quality can be changed in case select JPG or TIF

These functions are restricted depending on the models.

“Barcode” control setting (For only SR-8000HYBRID)

Setting value can be changed by putting a check mark in “Save file”.

When barcodes are read, the data is saved.

“Instruct print and reject” control setting (For only SR-8000HYBRID)

When you put a check mark in “Stop”, “Print”, and/or “Reject” and there is a mark in 1st line, it is operated in the high speed continuous reading mode as follows.

2nd column: “Stop” is performed. Reading is stopped when there is a mark.

If the next form has been fed, reading stoppes after rejecting that form.

4th column: “Print” is performed. Sequence number is printed on the form when there is a mark.

6th column: “Reject” is performed. The form is rejected when there is a mark.

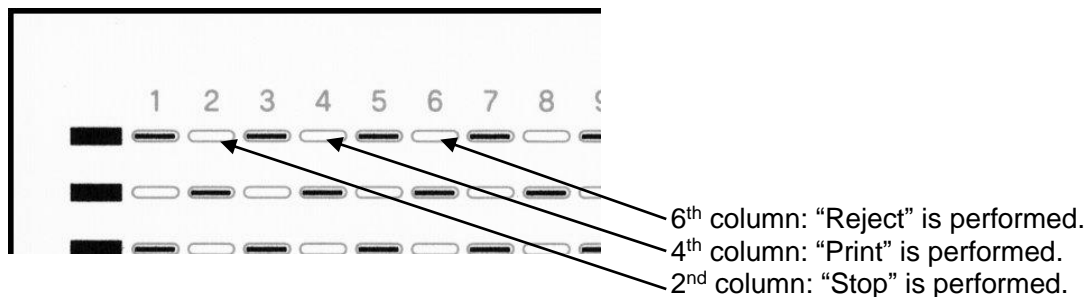


Fig.37 Mark pattern of “Instruct print and reject”

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OPTICAL MARK READER

SR-3500/6000/6500, SR-1800, SR-3500 HYBRID

SR-6500 HYBRID, SR-8000 HYBRID, SR-11000

Diagnostic Utility For Windows User's Manual

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<http://www.sekonic.co.jp>

* The specifications of this product may change without notice.