| Model: Triton-C1 | Date: 1-Jun-04 | No.: RB186001 |
|---|---|---|

| Subject: Caution for PCU related PM working | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other ( ) | | |

# Important Note for When Replacing the Drum or Developer

Please perform the following whenever replacing the drum or developer, in order to initialize the process control parameters.

## I. Parts Replacement, Cleaning

1. Replace the drum or developer.
2. Check the LD dust shield glass for dust, and clean the glass if necessary.
   **Note:** Be sure **NOT** to use alcohol when cleaning the glass.

## II. Initializing Process Control Parameters

1. Execute **SP5-879**, after which the machine will perform process control and automatically initialize the process control parameters.
2. Execute **SP5-643** (Auto Gradation Compensation), then perform the **Calibration** procedure, accessible from Program mode on the operation panel.
3. If the drum was replaced in Step 1 above, reset the counter(s) for the specific drum(s) replaced.
   - Entering a value of **0** will reset the counter.

Drum Life Counter

| Drum Replaced | SP Number |
|---|---|
| Y | 08-840 |
| M | 08-841 |
| C | 08-842 |
| K | 08-843 |

Drum Drive Counter

| Drum Replaced | SP Number |
|---|---|
| Y | 08-867 |
| M | 08-868 |
| C | 08-869 |
| K | 08-870 |

| Model: Triton-C1 | Date: 1-Jun-04 | No.: RB186002 |
|---|---|---|

| Subject: Bottom side Image appearance | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | | | |
|---|---|---|---|
| | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other ( ) | | |

## SYMPTOM

A faint version of the image on the rear side of a high image density original (opposite the side currently being scanned) appears superimposed on the front-side image of the copy.

## CAUSE

The default transfer voltage is slightly higher than the optimal level for reproducing halftone areas.

**Note:** The default settings for this model are geared toward maximum reproduction of solid image areas.

## SOLUTION

Please advise customers of the following User Program adjustment, and if this is unsuccessful in restoring image quality, perform the SP mode adjustment below.

### I. User Program Adjustment

1. From the operation panel, access the “Color” tab and then “Background Adjustment.”
2. Using Background Adjustment, adjust to a lighter level.

### II. Service Program Mode Adjustment

Perform the following SP adjustment (tables on the next page).

1. Reduce the transfer voltage to a value of 127 or less in **SP5-698 to -707**, depending on the specific printing mode you wish to adjust for.
   - The lower the input value, the lower the transfer voltage (input range: 0 to 255).
   - This procedure features a wider range of adjustment than with the User Program adjustment above.
2. Repeat Step 1, checking the actual printout results as you go, until the symptom is solved.

## SP Adjustment Table

| SP Number | Modes to Which the Settings are Applied |
|---|---|
| 05-698 | Full Color Text / Photo Mode |
| 05-699 | Full Color Text Mode |
| 05-700 | Full Color Photo Mode |
| 05-701 | Full Color Photographic Paper Photo Mode |
| 05-702 | Full Color Map Mode |
| 05-703 | Black & White Text / Photo Mode |
| 05-704 | Black & White Text Mode |
| 05-705 | Black & White Photo Mode |
| 05-706 | Black & White Photographic Paper Photo Mode |
| 05-707 | Black & White Map Mode |

| Model: Triton-C1 | Date: 1-Jun-04 | No.: RB186003 |
|---|---|---|

| Subject: Transfer Voltage adjustment | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other ( ) | | |

## SYMPTOM

One or more of the following sometimes occur when copying images that contain halftone areas.

- Bands of high or low image density at drum circumference pitch
- Negative residual images in halftone areas
- Grainy bands in halftone areas
- Honeycomb images or uneven image density on OHP transparencies in low-temperature, low-humidity conditions

## CAUSE

The default transfer voltage is slightly higher than the optimal level for reproducing halftone areas.

**Note:** The default transfer voltage for this model is set with highest priority on optimal reproduction of solid image areas.

## SOLUTION

Perform the following SP adjustment (tables on the next page).

1. Reduce the transfer voltage below the default value in **SP5-356 to -360** and **-315 to -317**, depending on the specific paper type you wish to adjust for.
   - The higher the input value, the higher the transfer voltage (input ranges vary as shown below).
2. Repeat Step 1, checking the actual printout results as you go, until the symptom is solved.

## SP Adjustment Table

| Paper Type | Service Program Mode | Input Range | Default |
|---|---|---|---|
| Normal Paper / Thin Paper | 05-356 | 0 – 8 for all (C/M/Y/K) | (C/M/Y/K) = (4/4/4/4) |
| Thick Paper 1 | 05-357 | 0 – 8 | (C/M/Y/K) = (4/4/4/4) |
| Thick Paper 2 | 05-358 | 0 – 8 | (C/M/Y/K) = (4/4/4/4) |
| Thick Paper 3 | 05-359 | 0 – 8 | (C/M/Y/K) = (4/4/4/4) |
| OHP | 05-360 | 0 – 8 | (C/M/Y/K) = (4/4/4/4) |
| Thick Paper 4 | 05-315 | -16 – 16 | (C/M/Y/K) = (4/4/4/4) |
| Special Paper 1 | 05-316 | -16 – 16 | (C/M/Y/K) = (-4/-4/-6/-12) |
| Special Paper 2 | 05-317 | -16 – 16 | (C/M/Y/K) = (0/0/0/0) |

## Paper Type Table

| Paper Type | Paper Thickness |
|---|---|
| Normal Paper / Thin Paper | 64 – 79g/$m^2$ 17 – 21lb |
| Thick Paper 1 | 80 – 105g/$m^2$ 22 – 28lb |
| Thick Paper 2 | 106 – 163g/$m^2$ 29 – 43lb |
| Thick Paper 3 | 164 – 209g/$m^2$ 44 – 55lb |
| OHP | 210 – 256g/$m^2$ 56 – 68lb |
| Thick Paper 4 | 257 – 280g/$m^2$ 69 – 75lb |
| Special Paper 1/2 | Aqua Ace |

| Model: Triton-C1 | Date: 1-Jun-04 | No.: RB186004 |
|---|---|---|

| Subject: Low Contrast Image | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other ( ) | | |

## SYMPTOM

- Grainy text in halftone areas
- Grainy thin lines in halftone areas
- Unfilled text (only edges are printed) in halftone areas

## CAUSE

The default image processing parameters for this model are designed with highest priority on optimal reproduction of photo image areas.

## SOLUTION

Perform the following SP adjustment (tables on the next page).

1. Increase the gamma curve factor to a value of 129 or higher in **SP5-708 to -717**, depending on the specific printing mode you wish to adjust for.
   - The higher the input value, the higher the image density (input range: 0 to 255).

2. Repeat Step 1, checking the actual printout results as you go, until the symptom is solved.

## SP Adjustment Table

| SP Number | Modes to Which the Settings are Applied |
|---|---|
| 05-708 | Full Color Text / Photo Mode |
| 05-709 | Full Color Text Mode |
| 05-710 | Full Color Photo Mode |
| 05-711 | Full Color Photographic Paper Photo Mode |
| 05-712 | Full Color Map Mode |
| 05-713 | Black & White Text / Photo Mode |
| 05-714 | Black & White Text Mode |
| 05-715 | Black & White Photo Mode |
| 05-716 | Black & White Photographic Paper Photo Mode |
| 05-717 | Black & White Map Mode |

| Model: Triton-C1 | Date: 3-Jun-04 | No.: RB186005 |
|---|---|---|

| Subject: SC C9E and C9C | Prepared by: M. Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other ( ) | | |

## Important note for when replacing the LGC, IMC, IMG and SYS boards

The following is a supplementary note for the Troubleshooting section of the Service Handbook (pg. 4-1).

**Very important:**

When replacing the LGC, IMC, IMG and/or SYS boards, be sure to **replace only one board at a time**, i.e. bring the machine to Ready status in between each board replacement. If two or more boards are replaced simultaneously, the machine ID information will be lost and SC C9E/C9C may be triggered. It is essential to replace the boards in this manner, as these SC errors can only be cleared by service product specialists from the manufacturer.

| Model: Triton-C1 | Date: 15-Oct-04 | No.: RB186006 |
|---|---|---|

| Subject: Service Manual Correction | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☒ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☐ Other ( ) | | |

Please correct your Service Manuals as follows.

**Page 1-2: Copy Speed Table**

Thin Paper/Normal Paper: A4, LT size: Paper Supply From LCF

Incorrect: 21 (31)

**Correct: 31 (31)**

**Page 8-4: Display Unit**

No19

Incorrect: Toner Decreased

**Correct: Toner is low**

| Model: Triton-C1 | Date: 15-Oct-04 | No.: RB186007 |
|---|---|---|

| Subject: Service Hand Book Correction | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☒ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☐ Other ( ) | | |

Please correct your Service Manuals as follows.

**Page 4-58: Color Registration Control Abnormal**

Step 12

Incorrect: T91

**Correct: T29**

Incorrect: T93

**Correct: T28**

**Page A-2: Copy Speed Table**

Thin Paper/Normal Paper: A4, LT size: Paper Supply From LCF

Incorrect: 21 (31)

**Correct: 31 (31)**

| Model: Triton-C1 | Date: 15-Oct-04 | No.: RB186008 |
|---|---|---|

| Subject: SC CE3 | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☒ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☐ Other ( ) | | |

Please add the following Service Code to your Service Hand Books.

**[CE3]: Abnormal Image Caused by Poor Charging**

Is the transfer belt dirty with toner?

**YES** → Clean the transfer belt.

**NO**

Does an error occur even after cleaning it?

**YES** → Do the following check and action:

1. Is the main charger securely installed? If it is not, securely install it.
2. Is the charge wire cut? If it is, replace it.
3. Is the harness between the high-voltage supply and main charger securely connected? If it is not, re-connect it.
4. Does the harness have any damage? If it does, replace it.
5. Is the machine supplying 24V to the high-voltage power supply? If it is not:
   1) Make sure the harness between the high-voltage supply and LGC is securely connected.
   2) Does the harness have any damage? If it does, replace it.
6. If the problem still occurs, replace the high voltage power supply.
7. If the problem still occurs, replace the LGC board.

Does the transfer belt have any damage?

**YES** → Replace the transfer belt.

**NO**

Is the color registration sensor dirty with toner?

**YES** → Clean the light-emitting part of the sensor.

**NO**

Do the following check and action:

1. Is the machine supplying 12V to the LGC board and color registration sensor? If it is not:
   1) Make sure the harness between the color registration sensor and LGC is securely connected.

2) Make sure the harness between the IMC and LGC is securely connected.
3) Do the harnesses have any damage? If they do, replace them.

2. If the problem still occurs, replace the color registration sensor.
3. If the problem still occurs, replace the LGC board.

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186009 |
|---|---|---|

| Subject: Improvement of Gray Image Uniformity Output from Controller | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☒ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☐ Other ( ) | | |

**This mode is effective from the following firmware:**

**SYS1 and 2 : Ver. 020**

**UI1 and 2 : Ver. 020**

## Improvement of Gray Image Uniformity Output from Controller

**1) Outline**

Test Print Mode (04) codes 41 and 44, Adjustment Mode (05) codes 7, 32 and 33, and Setting Mode (08) codes 58,59,60 and 61 are newly added. (Refer to Table 1.)

Code : Name
04-41 : Printer related gamma table creation pattern
04-44 : Printer related gamma table check pattern
05-7 : Printer related automatic adjustment / Gamma correction table creation
05-32 : Printer related gamma table creation pattern (Same as 04-41)
05-33 : Printer related gamma table check pattern (Same as 04-44)
05-58 : Printer related screen selection (Yellow ) (Refer to Table 1)
05-59 : Printer related screen selection (Magenta) (Refer to Table 1)
05-60 : Printer related screen selection (Cyan) (Refer to Table 1)
05-61 : Printer related screen selection (Black) (Refer to Table 1)
08-510 : Automatic gamma adjustment selection for printer
0: Copier & Printer interlocking adjustment (Default)
1: Copier & Printer individual adjustment

**2) Content:**

A halftone smooth screen applied to printed graphic data (e.g. line image) and image data (e.g. digital photos or scanned data) is switched to a rough screen.
It can suppress the roughness on the image by forming a solid black-only dot.
This setting can also reduce jittering in the gray scale mode.

**3) Adjustment Procedure**

(1) Change the value of “Automatic gamma adjustment selection for printer (08-510)” from “0: Copier & Printer interlocking adjustment” to “1: Copier & Printer individual adjustment”.

(2) Change the setting values of the Adjustment Mode (05-58 to 61) on 4 colors (yellow, magenta, cyan and black) simultaneously in either of "Setting value 1" and "Setting value 2" in Table 1 below.

Setting value 1: These values are to improve the uniformity of black images.
The screen pitch of black images becomes relatively large (rough screen) and the screen pitch of magenta images becomes small (smooth screen).
Setting value 2: These values are to improve the uniformity of yellow/cyan/black images.
The screen pitch of yellow/cyan/black becomes large (rough screen).

| Item to be adjusted | Adjustment Mode | Setting value | Setting value 2 | Default value |
|---|---|---|---|---|
| Printer related screen selection (Yellow) | 05-58 | 0 | 40 | 0 |
| Printer related screen selection (Magenta) | 05-59 | 30 | 50 | 0 |
| Printer related screen selection (Cyan) | 05-60 | 0 | 60 | 0 |
| Printer related screen selection (Black) | 05-61 | 10 | 70 | 0 |
| Automatic gamma adjustment selection for printer | 08-510 | 1 | 1 | 0 |

Table 1: Printer related screen adjustment value

(3) Perform "Forced performing of image quality control (05-878)".
(4) Perform the automatic gamma adjustment for the printer in the procedure described later.
(5) Perform the calibration of the printer controller (e.g. "AutoCal" or "DTP-32") for each media type.

**Notes:** 1. Enter the above settings in the above combinations only. Even though it is possible to enter settings other than the above combinations, do not do this because it can cause image defects.
2. Sometimes, changing the settings can cause some incidental problems. Print out the image and check the image quality thoroughly. Have a user check the image and then apply the change if the user admits it. For more information on incidental problems, see "5) Restrictions" below.

**4) Adjustment Procedure**

(1) Select the A3 drawer in Adjustment Mode (05). Select (05-32) and press [PRINTER/NETWORK] to output the gamma adjustment patch chart.
(2) Place the patch chart on the original glass face-down.
(3) Line up the black band in the patch chart with the side of the original scale.
(4) Enter (05-7) with the digital keys and press [START]. The scanner automatically scans the chart. Then the automatic gamma adjustment calculation is done (approx. 30 seconds).
(5) "Scan completed" is displayed when the adjustment is completed correctly. Press [START] to apply the adjustment result (to cancel this, press [STOP]).

**5) Restrictions**

(1) This screen change is different from the one at the profile creation of EFI controllers. Therefore the color of the output image may differ from the image output before the change.
(2) This chart differs from the patch data used for image quality control of the printer engine in its configuration. This difference may affect image stability or calibration accuracy. Therefore, a gradation step or a brightness reverse may occur.

(3) The automatic gamma adjustment for the copier and the one for the printer need to be performed individually. (Refer to the adjustment procedure.)
(4) When the value in “Setting value 1” is selected, the roughness of magenta or colors which include magenta (e.g. beige, light red, pink) may stand out.
(5) Jaggies may occur and lines may become dotted frequently. Especially, when the value in “Setting value 2” is selected, the occurrence of jaggies increases drastically, and white borders may appear frequently.
(6) When the value in “Setting value 2” is selected, the roughness of the screen may stand out.
(7) When the value in Setting value 2” is selected, Moiré may frequently appear on a gray or grayish blue image which consists of 3 or 4 colors.

**New SP mode**

### 1.2.3 Test print Mode (04)

| Code | Types of test patterns | Remarks | Paper/Size |
|---|---|---|---|
| 41 | Printer related gamma table creation pattern | | A3/LD |
| 42 | Printer related gamma table check pattern | | A3/LD |

### 1.2.4 Adjustment Mode (05)

| Adjustment Mode (05) | | | | | |
|---|---|---|---|---|---|
| Code | Description/Mode | Default | Accep-table Value | Contents | Proce-dure |
| 7 | Printer related automatic adjustment/Gamma correction table creation | - | - | Create printer related gamma correction table.<br>In the same operation as 05-643, place the chart outputted with 05-32 (test print) on the original table, and then press the [START] button. | 13 |
| 32 | Printer related gamma table creation pattern (Same as 04-41) | - | - | Output the test chart for creating the printer gamma table.<br>Key in the code with the 05 code standby screen, press the [PRINTER/NETWORK] button and then a test chart will be outputted. | ← |
| 33 | Printer related gamma table check pattern (Same as 04-44) | - | - | Output the test chart for checking printer gamma table.<br>Key in the code with the 05 code standby screen, press the [PRINTER/NETWORK] button and then a test chart will be outputted. | ← |
| 58 | Selecting printer-system screen (Yellow) | 0 | 0 | Improving the rough gray image of output from the printer controller. (Refer to 2.6.8) | 1 |
| 59 | Selecting printer-system screen (Magenta) | 0 | 30 | | 1 |
| 60 | Selecting printer-system screen (Cyan) | 0 | 0 | | 1 |
| 61 | Selecting printer-system screen (Black) | 0 | 10 | | 1 |

### 1.2.5 Setting mode (08)

| Setting mode (08) | | | | | |
|---|---|---|---|---|---|
| Code | Description/Mode | Default | Accep-table Value | Contents | Proce-dure |
| 273 | One-touch operation paper exit in reverse sequence. | 0 | 0~1 | 0: Disabled 1: Enabled<br>(Refer to 2.13) | 1 |
| 510 | Automatic gamma adjustment selection for printer | 0 | 0~1 | 0: Copier & Printer interlocking adjustment<br>1: Copier & Printer individual adjustment | 1 |

**2-13. One-touch Operation Paper Exit in Reverse Sequence**

**1) Outline**

This function allows copies to be stacked face-up, in contrast to the standard method of outputting pages face-down.

**2) Function**

(Prerequisite)

This function is for users who use finishing devices such as the Z-folder.

**3) Operation Procedure**

(1) Change the following setting value to “Enabled”.

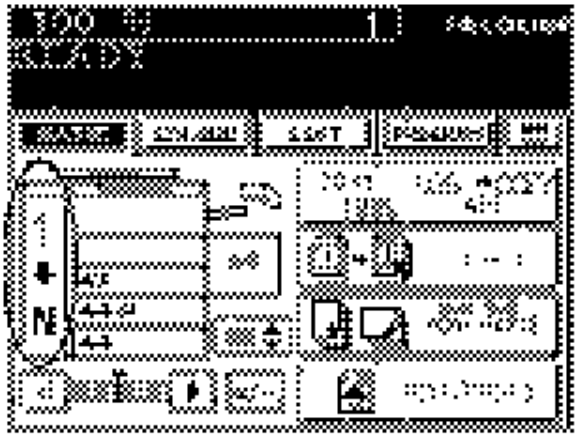
(08-273) One-touch operation paper exit in reverse sequence

Enabled/Disabled

0: Disabled (Default)

1: Enabled

The copy screen changes as follows:



(2) Press the part circled on the screen to reverse the paper exit sequence.

**4) Restrictions**

(1) This setting is ignored and the paper is exited in a normal sequence when the following functions are selected.
- N in 1
-Duplex paper exit
-Book-type original → 2-sided copy
-Saddle stitching
-Magazine sort

(2) There is a short delay before the pages are printed out. This is because page one must be printed out last, and to do this, all data must be stored in the hard drive before the printing out can start.

(3) This function can be cleared by pressing [FUNCTION CLEAR] or Automatic Function Clear.

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010 |
|---|---|---|

| Subject: Firmware History | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

Classification:

- ☐ Troubleshooting
- ☐ Part information
- ☐ Action required
- ☐ Mechanical
- ☐ Electrical
- ☐ Service manual revision
- ☐ Paper path
- ☐ Transmit/receive
- ☐ Retrofit information
- ☒ Other (Firmware)

This is to inform you of the firmware history for the Model TR-C1.

**SCM**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 01 | B1867518 | 56CB | 1st Mass Production |

**IMC**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 02 | B1867519 | E769 | 1st Mass Production |

**LGC**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 03 | B1867525 | 4444 | 1st Mass Production |

**SYS1**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 020 | B1867541 | 8711 | July 2004 Production |
| 010 | B1867521 | DAC1 | 1st Mass Production |

**SYS2**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 020 | B1867546 | 61F6 | July 2004 Production |
| 010 | B1867526 | EB68 | 1st Mass Production |

**UI1**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 020 | B1867542 | 81C1 | July 2004 Production |
| 010 | B1867522 | E16B | 1st Mass Production |

**UI2**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 020 | B1867547 | 2FC0 | July 2004 Production |
| 010 | B1867527 | D1EF | 1st Mass Production |

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010 |
|---|---|---|

**SYS1/2**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| 020 | 1. Functions were added:<br>1) "Improvement of Gray Image Uniformity Output from Controller"<br>2) "One-touch Operation Paper Exit in Reverse Sequence"<br>2. Spelling was corrected. | See RTB #RB186009 | July 2004 Production |
| 010 | | 1st mass production | - |

**UI1/2**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| 020 | 1. Functions were added:<br>1) "Improvement of Gray Image Uniformity Output from Controller"<br>2) "One-touch Operation Paper Exit in Reverse Sequence"<br>2. Spelling was corrected. | See RTB #RB186009 | July 2004 Production |
| 010 | | 1st mass production | - |

| Model: Triton-C1 | Date: 12-Jan-05 | No.: RB186011 |
|---|---|---|

| Subject: B728 Firmware Version 2.1 | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

Classification:

| | | |
|---|---|---|
| ☐ Troubleshooting | ☐ Part information | ☐ Action required |
| ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| ☒ Other (Firmware) | | |

The firmware version 2.1 for B728 was released.

**Combination of Firmware**

| Item | P/N |
|---|---|
| Sys 1 | B1867541 |
| Sys 2 | B1867546 |
| UI 1 | B1867542 |
| UI2 | B8167547 |
| IMC | B1867519 |
| LGC | B1867525 |
| SCM | B1867518 |

**Detail of version 2.1**

1. **CWS**

   The units for the HDD and memory sizes have been corrected.

2. **Job Monitor**

   Specification change:

   The default setting of "Pop-up message Box" has been changed to ‘OFF’.

   The following problem has been corrected:

   You cannot correctly delete ‘Job Monitor’ using "Add or Remove Programs".

3. **WebTool**

   Specification change:

   If the Java module has not been installed on the PC, a message reminding the user to install Sun's Java module shows.

   The following problem has been corrected:

   When WebSetup was accessed from WebTools, the SNMP Community Name window showed first.

**4. Windows Printer Driver**

The following invalid combinations were not restricted by the driver U/I. From this point forward, these combinations are restricted.

1)Media Type: Transparency, Punch: On

2)Media Type: Thick1, Staple: On

The PCL driver's finisher/sorter default setting has been changed from "Off" to "Collate".

**5. Macintosh PPD**

The following bug has been fixed.

Media Type and Output Profile menus were grayed out.

**6. System Software**

Specification change:

Black detection mode could not be set to OFF. Now it can be.

**7. The following bugs have been fixed.**

- The output image was shifted if the "Scale to Fit" function was used when printing a specific page range.
- If a paper jam occurred in the paper exit area in Staple or Booklet Staple mode, the "Print Cancel Job" message stays on the LCD panel.
- The PCL driver could not print with the following combinations of settings.
  1) Statement-R, Portrait, and Duplex: Top-Top binding
  2) Statement-R, Landscape, and Duplex: Top-Bottom binding.
- "Scale to Fit" did not work correctly with Booklet Maker mode.
- If 2 copies of a 1100 page (or more) job were sent to the printer, and sorter mode was selected, the controller might have rebooted.
- If a landscape image was sent to the Internet Fax function from Panel Scan or Fiery Remote Scan, the scanned image rotated by 180 degrees.
- If the by-pass tray ran out of paper (paper end condition), the copier's LCD might have displayed a message requesting that the tray be refilled with an incorrect paper size.
- Even if the proper "Department ID" was entered in job override from CWS, the job would not print. This was the same result as entering an improper "Department ID".
- Max. number of characters for Group Name and Group Password was limited to 20. Now you can input up to 31.
- Even if Pure Black Text/Graphics is set to Off, the result was still printed in pure black (PS driver only).
- If a Watermark was printed with the following settings, the color of the watermark on the 1st page was different from other pages.

- "Print In Background" = OFF with N-up print
- Black 'Word Art' could not be printed in pure black from Windows XP.
- If a Watermark with a text-size of 150 or larger was printed and "Print In Background" was unchecked, texts around the watermark became bold and colored. (NT/2k/XP PCL driver only)
- The time displayed in Job Monitor was not correct. Now the time matches to the system time of the controller.
- The Job Monitor and printer drivers always showed that the LCF (Large Capacity Feeder) was attached to the copier.
- 'Menu > Tray Alignment > Restore Defaults' caused the LCD display on the MFP to go blank.

| Model: Triton-C1 | Date: 8-Sep-05 | No.: RB186012a |
|---|---|---|

| Subject: New Function | Prepared by: M.Tsuyuki |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |

| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
|---|---|---|---|
| | ☐ Mechanical | ☐ Electrical | ☒ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☐ Other ( ) | | |

## Firmware Release Note

## Summary

The following two functions were added:

- Adjustment of low speed timing for special paper
- Color-only department management function

**Note:** See the next page for details.

## Firmware Combination

Use the following firmware versions together.

| Item: | P/N: |
|---|---|
| Sys 1 | B1867561 |
| Sys 2 | B1867566 |
| UI1 | B1867562 |
| UI2 | B8167567 |
| IMC | B1867519 |
| LGC | B1867545 |
| SCM | B1867518 |
| Controller | ***B7285033*** (System CD) |

The following self-diagnosis will be added.

1.2.4 Adjustment mode (05)

| Adjustment mode (05) | | | | | |
|---|---|---|---|---|---|
| Code | Item | Default | Acceptable value | Contents | Procedure |
| 433 | Adjusting the start timing of speed reduction for transporting after K is transferred | 0 | -10 to +10 | "0":<br>Start timing of speed reduction: After K is transferred<br><br>"1 to 10":<br>Increasing the setting value by +1 delays the start timing of speed reduction by approx. 5 msec.<br><br>"-1 to -10":<br>Decreasing the setting value by -1 accelerates the start timing of speed reduction by approx. 5 msec.<br><br>See 2.14 for details. | 1 |

1.2.5 Setting mode (08)

| Setting mode (08) | | | | | |
|---|---|---|---|---|---|
| Code | Items | Default | Acceptable value | Contents | Procedure |
| 610 (Setting value added) | Color mode priority setting (scan) | 2 | 1-3 | Default value is set in color mode when scanning function is used.<br>0: Reserved<br>1: Gray scale<br>2: Full color<br>3: Black & White (Added) | 1 |
| 622 (Setting value added) | Default value setting for reading resolution (scan) | 2 | 0-3 | Default value is set for reading resolution when scanning function is used.<br>0:600dpi<br>1:300dpi<br>2:150dpi<br>3:200dpi (Added) | 1 |
| 633 (Code added) | Switching the Color only department management function enabled/disabled | 0 | 0, 1 | 0: Disabled<br>1: Enabled<br><br>See 2.15 for details. | 1 |
| 968 (Code added) | Code for identifying models | 0, 1 | 0, 1 | This code is used to identify the model name of RDMS.<br><br>0: e-STUDIO211c/311c<br>1: e-STUDIO2100c/3100c | 1 |

Note:

Note when the setting value of 08 code 712 or 713 is "0" (the fuser roller temperature during the energy saver mode is set to 'Fuser lamp OFF').

When the fuser roller temperature during the energy saver mode is set to 'Fuser lamp OFF' (the setting value of 08 code 712 or 713 is "0"), the transition from 'the energy saver mode' to 'Sleep mode' cannot be performed by the function of 'Weekly Timer' or 'Auto power OFF'. ('Auto power OFF', if the main power supply is turned off, is not applicable in this case.)

To perform the above transition, do not set the fuser roller temperature during the energy saver mode to "Fuser lamp OFF" (the setting value of 08 code 712 or 713 is "0").

2.14 Adjustment of low speed timing for special paper (Adjusting the start timing of speed reduction for transporting after K is transferred) (05-433)

1). Outline

When a small size special paper is used, lower the fusing speed to improve the fusability of toner. To match the paper transporting speed with the fusing speed after K color in the process unit has finished being printed, the speed of the photoconductive drum and the transfer belt unit are controlled to be lowered. The reduction timing will be adjusted using this adjustment code (05-433).

Acceptable value of adjustment is -10 to 10. The larger the value is, the later the speed reduction timing is. (Approx. 0.6 mm / 1 step)
Recommended value for input is -4 to 4. If the value exceeds this, check the abrasion status of the feeding registration roller and installation status of the fuser unit front guide and readjust them.

| Code | Type | Item | Applicable printer/MFP | Default value | Acceptable value | RAM |
|---|---|---|---|---|---|---|
| 05-433 | Paper feed | Adjustment of low speed timing for special paper | ALL | 0 | -10 to 10 | M |

2). Adjustment Procedure

(1) While pressing [0] and [5], turn on the power. => (Adjustment mode)
(2) Enter the code [433]. => Press the [START] button.
(3) Enter the numeric value. (For the negative value, press the [ACCESS] button before entering the value.)
(4) Press the [SET] or [INTERRUPT] button.

3). Timing adjustment and Operation

If the value 05-433 is changed, the following control is performed.

(1) The reduction timing after K color is printed is changed. (0.6 mm / 1 step)
Increasing 1 step delays the reduction timing by 0.6 mm.
Decreasing 1 step accelerates the reduction timing by 0.6 mm.

(2) The development/transfer high voltage charging time is changed according to the change of reduction timing.
Increasing 1 step delays the development/transfer high voltage charging time by 0.6 mm.
Decreasing 1 step accelerates the development/transfer high voltage charging time by 0.6 mm.

Note for adjustment: (For the following image sample, see the attached file.)

If the entered value is large, an image with streaks caused by the contact of the Image Quality Sensor may occur because paper bends between the K color photoconductive drum and fuser unit.

If the entered value is small (large: in case of negative value), an image of paper trailing edge may become light.

2.15 Color only department management function

1). Outline

In normal setting, the copying and printing could not be operated in any color mode (BLACK/FULL COLOR/AUTO COLOR) without entering the access code when the department management was enabled.
Also, the operations were restricted by copy number of the total limitation set for each department.

As a countermeasure, a function has been equipped that the copying and printing can be operated without entering the access code when the color mode is "BLACK".
This function is called Color only department management function.
For copying operation in "FULL COLOR" and "AUTO COLOR" mode, entering the access code is required as before.

2). Setting Color only department management Function (to service technicians)

This function can be performed with the setting code 08-633 to be enabled by service technicians. (The code is disabled by default.) This code is used for both copying and printing.

**Note: When switching the Color only department management function to 'Enabled' or 'Disabled', be sure to clear the department counter to "0". If not, conflict between the total counter and department counter occurs.**

3). Setting procedure for service technician
3-1). Set the Color only department management function to be enabled. (for both copying and printing)

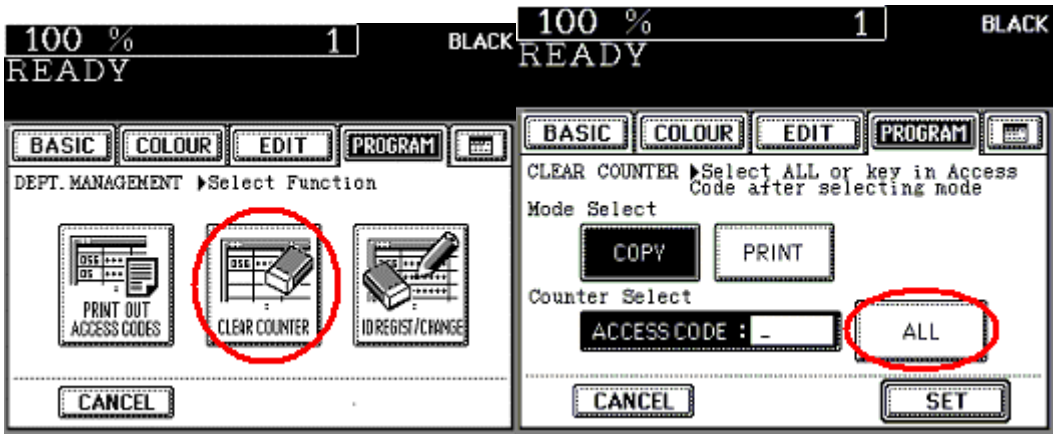
08-633 Setting value:1
0: Disabled (Default)
1: Enabled

3-2). Set "Counting method of monocolor copy in department management" (08-647) as required.
Setting of whether monocolor copy is counted as "FULL COLOR" or "BLACK" by the administrator
08-647
0: Counts as full color (Default)
1: Counts as Black and white

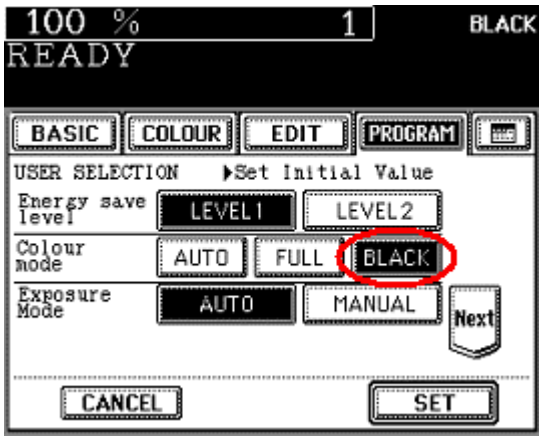
Note: This setting is not necessary to be changed. However, if this setting value is set to "FULL COLOR" (0), the "MONOCOLOR" function is not selectable from the menu when the color mode is "BLACK".

3-3). Clear the department counter.

After enabling the department management, clear the department counter on the user menu.

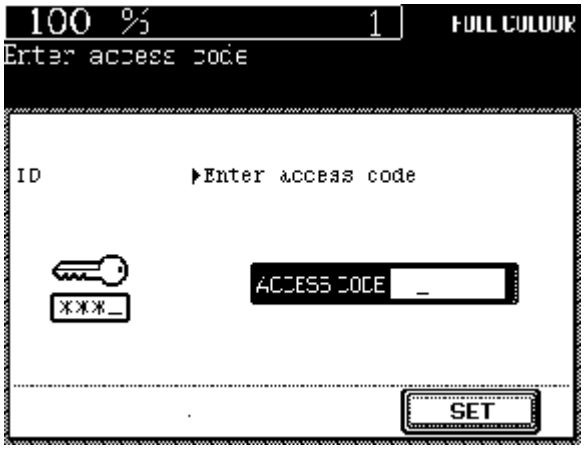



3-4). Set "BLACK" for default in color mode (Recommended setting when the Color only department management function is enabled).



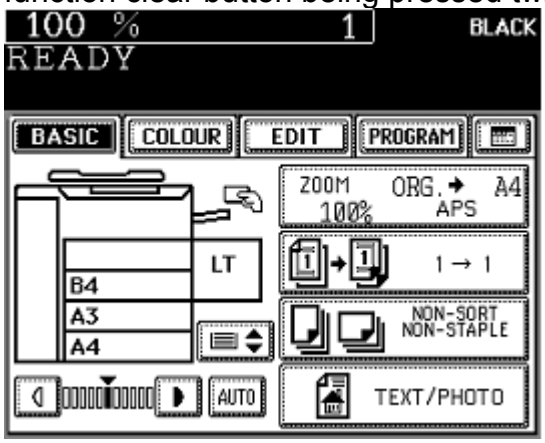
4). Screen handling (Users operation)

4-1). Screen when the department management is enabled and Color only department management function is disabled
Regardless of the default color mode, the access code entry menu is displayed as shown below at the start up, when the screen is auto-cleared, access code button is pressed or function clear button is pressed twice.

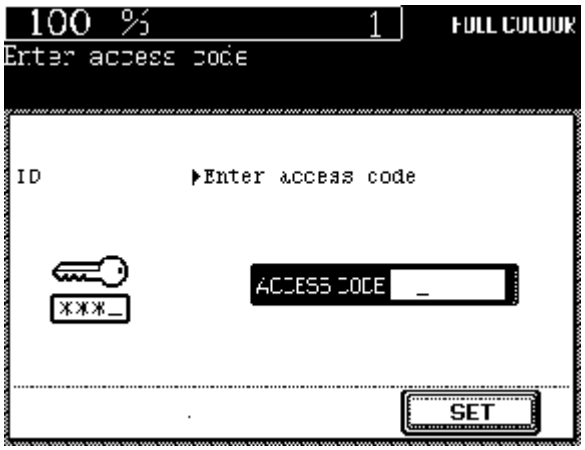



4-2). Screen when the department management and Color only department management function are enabled
4-2-1). Basic menu (the screen shown at the start up, when the screen is auto-cleared, access code button is pressed or the function clear button is pressed twice)

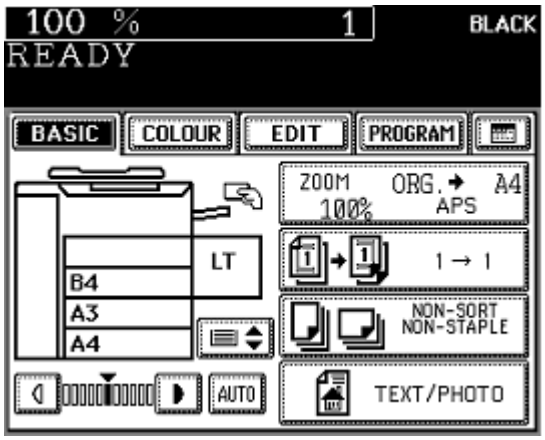
(1) When the default color mode is "BLACK", the following basic copy menu is displayed. (screen shown at the start up, when the screen is auto-cleared, the black mode is selected, etc.)
Note: The screen below is shown without the access code button being pressed or function clear button being pressed twice.




(2) When the default color mode is "FULL COLOR" or "AUTO COLOR", the following access code entry menu is displayed.
(the screen shown at the start up, when the screen is auto-cleared, access code button is pressed or the function clear button is pressed twice)

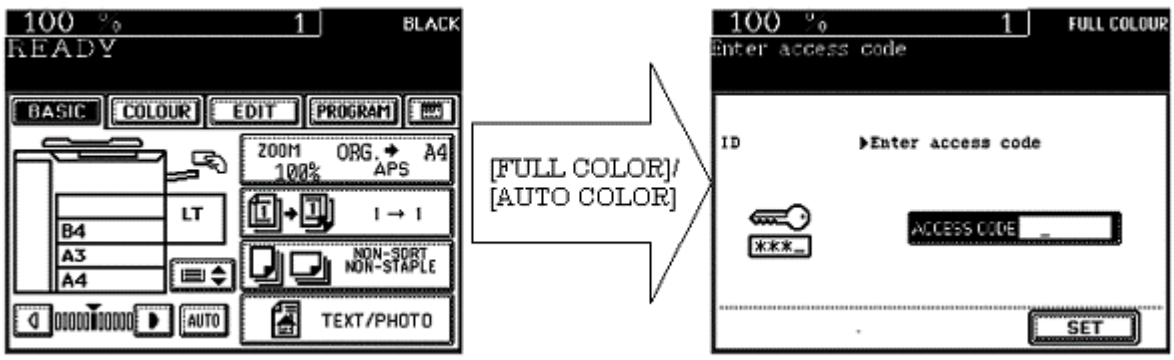



4-2-2). The screen when "BLACK" is selected for the color mode




4-2-3). When "FULL COLOR" / "AUTO COLOR" is selected

After the color mode is set to "BLACK" and the following basic menu (left) is displayed, when "FULL COLOR" or "AUTO COLOR" is selected in this menu, the following access code entry menu (right) is displayed. The settings previously set such as the number of copies and other functions are all cleared. Entering the access code enables the copying and scanning operation.




When the color mode is "FULL COLOR" or "AUTO COLOR", the access code is entered,

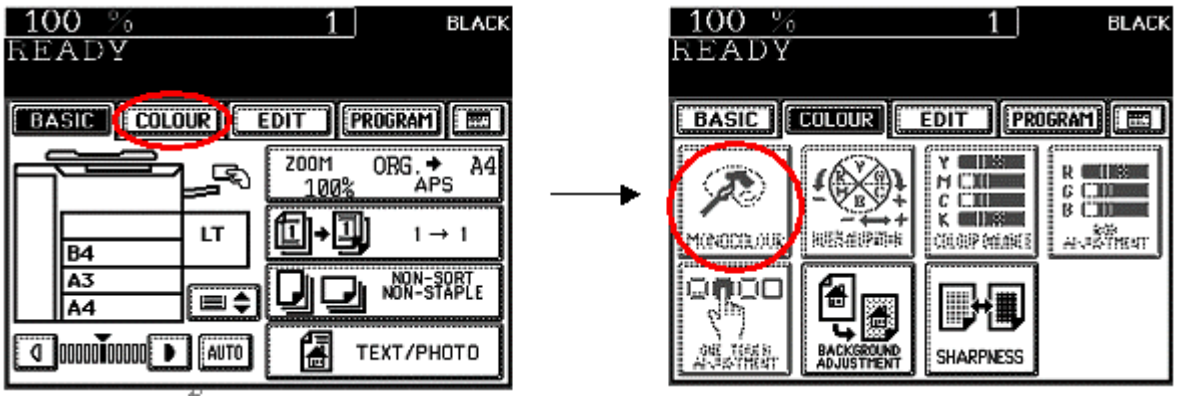
and the basic menu is switched by the black mode being selected, the settings are not cleared.

As for the original mode, the default setting mode for each color is selected .

4-2-4). Selecting the MONOCOLOR function when the Color only department management function is enabled.

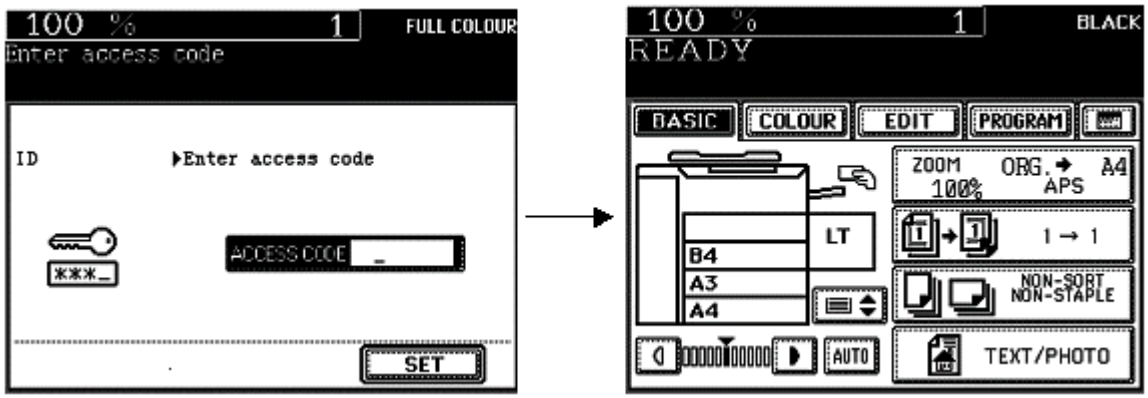
"MONOCOLOR" has been selectable in the following color menu (left) in the black mode. However, it may not be selectable in the black mode depending on the setting of the MFP (right below).

For this example, when the Color only department management function is enabled and "Counting method of monocolor copy in department management" is set to "Counts as full color" (08-647=0, Default), the [MONOCOLOR] button is not selectable (right below). When this code is set to "Counts as Black and white" (08-647=1), this button is selectable.




4-2-5). Returning from the access code entry menu

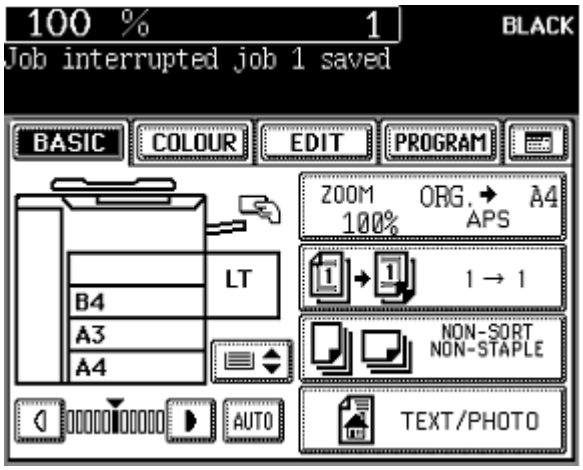
When the color mode is "FULL COLOR" or "AUTO COLOR" and the following access code entry menu (left) is displayed, selecting the black mode shows the following basic copy menu (right) and enables copying operation.



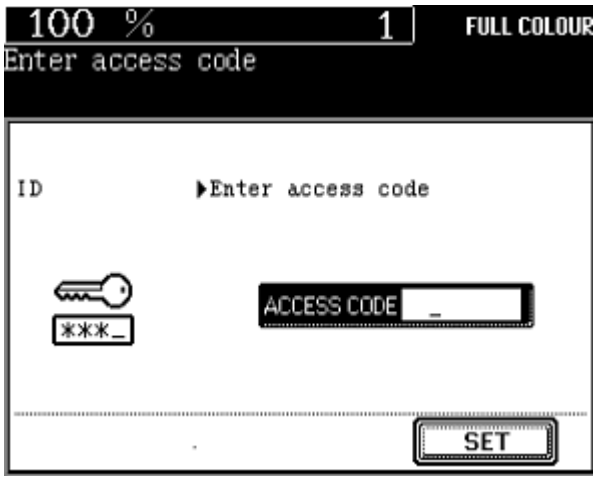

4-2-6). Screen transition when the interrupt copying

The [INTERRUPT] button (hard key) can be pressed when the basic copy menu is displayed. The screen after the [INTERRUPT] button is pressed varies depending on the default color mode setting.

When the default color mode is "BLACK":
When the [INTERRUPT] button is pressed, the following interrupt copy setting menu is displayed. If the [INTERRUPT] button is pressed again in this state, the interrupt copy setting is cleared and the screen goes back to the one before the interrupt copy setting menu.



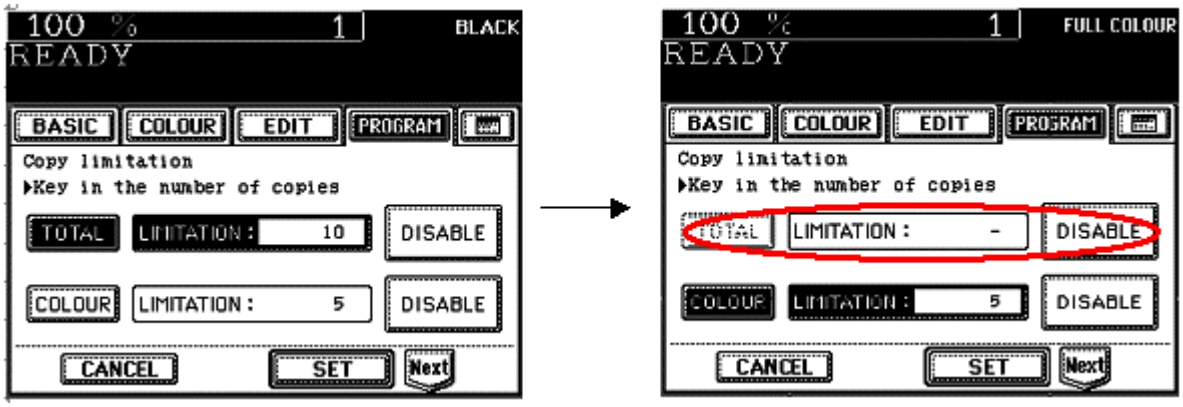

When the default color mode is "FULL COLOR" or "AUTO COLOR":
When the [INTERRUPT] button is pressed, the following access code entry menu is displayed (right). If the [INTERRUPT] button is pressed again in this state, the interrupt copy setting is cleared and the screen goes back to the one before the interrupt copy setting menu.




4-2-7). Limitation setting when the department management and Color only department management function are enabled

The total limitation (copy limit) cannot be set when the Color only department management

function is enabled (Items in the red frame are grayed out and inactive). When the Color only department management function is enabled, the setting value of the total limitation is cleared automatically (see the following figures.).
The color limitation can be set as previously.




4-3). Counter management

< When the department management and Color only department management function are enabled >

(1) Copies of black and white pages are not counted in each department counter but in the total counter. It is the same when the access code has been entered.

(2) Copies of black and white pages are not counted in each department counter when they are set to "Counts as Black and white" (08-647=1) but in the total counter only. When they are set to "Counts as full color" (08-647=0), they are counted in each department counter.

(3) Printing of black and white pages are not counted in each department counter but in the non-defined department code area and total counter. It is the same when the access code has been set.

4-4). Limitation (copy limit) check

< When the department management and Color only department management function are enabled >

(1) No limit check is performed when copies are made in the black mode.

(2) When all the pages are in black and white, printing is carried out without the access code check and limit check being performed.

Note:
If the black and white pages cannot be printed, select "Gray scale" for the color setting of the printer driver and try it again.

4-5). Access code in the "FULL COLOR" / "AUTO COLOR" mode

Access code entered in the "FULL COLOR" or "AUTO COLOR" mode is cleared when moving into the "BLACK" mode. If moving back into the "FULL COLOR" or "AUTO COLOR" mode from the "BLACK" mode again, entering the access code is required.

**Reissued: 8-Sep-05**

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010a |
|---|---|---|

**RTB Reissue**

The items in bold italics have been added.

| Subject: Firmware History | | | Prepared by: M.Tsuyuki |
|---|---|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | | | |
| Classification: | ☐ Troubleshooting | ☐ Part information | ☐ Action required |
| | ☐ Mechanical | ☐ Electrical | ☐ Service manual revision |
| | ☐ Paper path | ☐ Transmit/receive | ☐ Retrofit information |
| | ☒ Other (Firmware) | | |

This is to inform you of the firmware history for the Model TR-C1.

### SCM

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 01 | B1867518 | 56CB | 1st Mass Production |

### IMC

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 02 | B1867519 | E769 | 1st Mass Production |

### LGC

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| ***04*** | ***B1867545*** | ***8184*** | ***May 2005 Production*** |
| 03 | B1867525 | 4444 | 1st Mass Production |

### SYS1

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| ***030*** | ***B1867561*** | ***80C9*** | ***May 2005 Production*** |
| 020 | B1867541 | 8711 | July 2004 Production |
| 010 | B1867521 | DAC1 | 1st Mass Production |

### SYS2

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| ***030*** | ***B1867566*** | ***D8CD*** | ***May 2005 Production*** |
| 020 | B1867546 | 61F6 | July 2004 Production |
| 010 | B1867526 | EB68 | 1st Mass Production |

### UI1

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| ***030*** | ***B1867562*** | ***81C1*** | ***May 2005 Production*** |
| 020 | B1867542 | 81C1 | July 2004 Production |
| 010 | B1867522 | E16B | 1st Mass Production |

**Reissued: 8-Sep-05**

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010a |
|---|---|---|

**UI2**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| ***030*** | ***B1867567*** | ***4471*** | ***May 2005 Production*** |
| 020 | B1867547 | 2FC0 | July 2004 Production |
| 010 | B1867527 | D1EF | 1st Mass Production |

**Controller (System CD)**

| Ver. | Part No. | Check SUM | Effective Date |
|---|---|---|---|
| 2.1 | B7285033 | - | Nov. 2004 Production |
| 2.0 | B1865023 | - | 1st Mass Production |

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010a |
|---|---|---|

**LGC**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| ***04*** | ***Functions were added:***<br>***1) Adjustment for low-speed start timing for thick paper (adjustment code 05-433).***<br>***2) Color-only department management function*** | ***See RTB #RB186012*** | ***May 2005 Production*** |
| 03 | | 1st mass production | - |

**SYS1, SYS2**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| ***030*** | ***Functions were added:***<br>***1) Adjustment for low-speed start timing for thick paper (adjustment code 05-433).***<br>***2) Color-only department management function*** | ***See RTB #RB186012*** | ***May 2005 Production*** |
| 020 | 1. Functions were added:<br>1) "Improvement of Gray Image Uniformity Output from Controller"<br>2) "One-touch Operation Paper Exit in Reverse Sequence"<br>2. Spelling was corrected. | See RTB #RB186009 | July 2004 Production |
| 010 | | 1st mass production | - |

**UI1, UI2**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| ***030*** | ***Functions were added:***<br>***1) Adjustment for low-speed start timing for thick paper (adjustment code 05-433).***<br>***2) Color-only department management function*** | ***See RTB #RB186012*** | ***May 2005 Production*** |
| 020 | 1. Functions were added:<br>1) "Improvement of Gray Image Uniformity Output from Controller"<br>2) "One-touch Operation | See RTB #RB186009 | July 2004 Production |

| Model: Triton-C1 | Date: 7-Dec-04 | No.: RB186010a |
|---|---|---|

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| | Paper Exit in Reverse Sequence"<br>2. Spelling was corrected. | | |
| 010 | | 1st mass production | - |

**Controller (System CD)**

| Ver. | Title | Symptom | Effective Date |
|---|---|---|---|
| 2.1 | See RTB #RB728003 | See RTB #RB728003 | Nov. 2004 Production |
| 2.0 | | 1st mass production | - |