

Troubleshooting: TCRU

Read this manual carefully before using this machine and keep it handy for future reference.

How to Read This Manual

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

Symbols

This manual uses the following symbols:

⚠ CAUTION
<ul style="list-style-type: none">• Indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

Note:

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

[]

Indicates the names of keys that appear on the machine's display panel.

[] key

Indicates the names of keys on the machine's control panel.

Important

- In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.
- The supplier shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the supplier with your office products.

Notes

- This information provides extra information about machine maintenance.
- Contents of this manual are subject to change without prior notice.
- This manual covers several different models, and therefore contains functions and settings that may not be available for your model. Images, illustrations, and functions may differ from those of your model.
- Certain options might not be available in some countries. For details, please contact your local dealer.
- Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.
- Use metric notation when making settings for this machine.

Table of Contents

How to Read This Manual	2
1. Troubleshooting	4
1.1 Before You Begin	4
1.1.1 What Are SC Codes?	4
1.2 Troubleshooting Image Quality Problems.....	6
1.2.1 Before You Begin	6
1.2.2 Problem 1: White Spots.....	7
1.2.3 Problem 2: Sharp Black Spots.....	9
1.2.4 Problem 3: Sharp and Faint Black Spots.....	11
1.2.5 Problem 4: Black Stripes	13
1.2.6 Problem 5: Black Bands	15
1.2.7 Problem 6: Light Copies	16
1.2.8 Problem 7: Dirty Background.....	18
1.2.9 Problem 8: Irregular Streaks.....	20
1.2.10 Problem 9: White or Gray Band.....	22
1.2.11 Problem 10: Streaks at Leading Edge	24
1.3 Misfeed Code	26

1. Troubleshooting

1.1 Before You Begin

1.1.1 What Are SC Codes?

The machine displays an SC code ("SCnnn" where "nnn" is a 3-digit number) when an error occurs in the operation of the machine. The copier stops and cannot be used when an SC code appears.

When an SC code appears:

1. Write down the SC number.
2. Turn off the main power switch.

Note:

The main power switch is the switch on the lower left side of the machine under the hinged plastic cover.

3. Wait a few moments and then turn the machine on again.
In most cases, cycling the machine off and on will restore it to full operation.
4. If the SC code appears again, check it against the table on the next page.
5. If you see the SC code listed in the table on the next page, do the recommended procedure.

-or-

If you do not see the SC code in the table on the next page, call for service.

⚠ CAUTION
Before you replace any unit:
<ul style="list-style-type: none">• Always turn the machine off and unplug the power cord from the power source.• Let the machine sit for about 10 minutes to cool off before you do any procedure. This allows time for the fusing unit to cool.

Here is a list of selected SC codes.

If the SC code on the control panel display is in the list below, do the recommended procedure.

If the displayed SC code is not in this list, call for service.

Code	Error	Procedure
SC300	Charge Corona Error 1: Charge Leak	Replace the charge unit.
SC304	Charge Corona Error 2: Grid Leak	Replace the charge unit.
SC312	Pre-Charge Output Error 1: Leak	Replace the sub-charge unit.
SC313	Pre-Charge Output Error 1: Grid Output	Replace the sub-charge unit.
SC320	Development Bias Error	Replace the development unit.
SC368	TD Sensor Adjustment Error 1	Replace the development unit
SC372	TD Sensor Adjustment Error 2	Replace the development unit
SC438	Drum Potential Sensor Error 5: ID Sensor Pattern Potential	Replace the photoconductor unit.

1.2 Troubleshooting Image Quality Problems

This section describes some image quality problems and tells you what to do about them.

1.2.1 Before You Begin

Paper Feed Direction

Before you begin this section, please note that the dark arrow in each illustration indicates the direction of paper feed.

Sky Shots

You may be instructed to make a sky shot. To do a sky shot:

Note:

If your machine does not have a copier function, print out a solid black sheet using the machine's printer function.

1. Lift the Auto Document Feeder (ADF) until it is fully vertical.
2. If there is an original on the exposure glass, remove it. There should be nothing on the exposure glass.
3. If there is a strong overhead light shining onto the exposure glass, block the light with a large piece of paper from the side of the machine.

Note:

If you do not block the overhead light, this may prevent getting a perfectly black copy and spoil the test.

4. Press the [Start] key. The exposure lamps will flash and the copier will print a completely black copy. This is your sky shot.

Adjustment Settings for Skilled Operators Menu

All recommended SP adjustments are done in the Adjustment Settings for Skilled Operators menu.

To access the Adjustment Settings for Skilled Operators menu:

1. Press the [User Tools] key.
2. Press [Adjustment Settings for Skilled Operators].
3. Enter your login user name and password.

1.2.2 Problem 1: White Spots



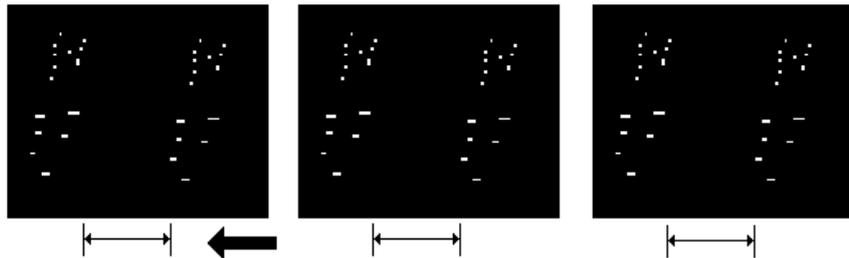
White spots appear as dots or small lines at 314 mm (12 inches) intervals, in the direction of paper feed.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

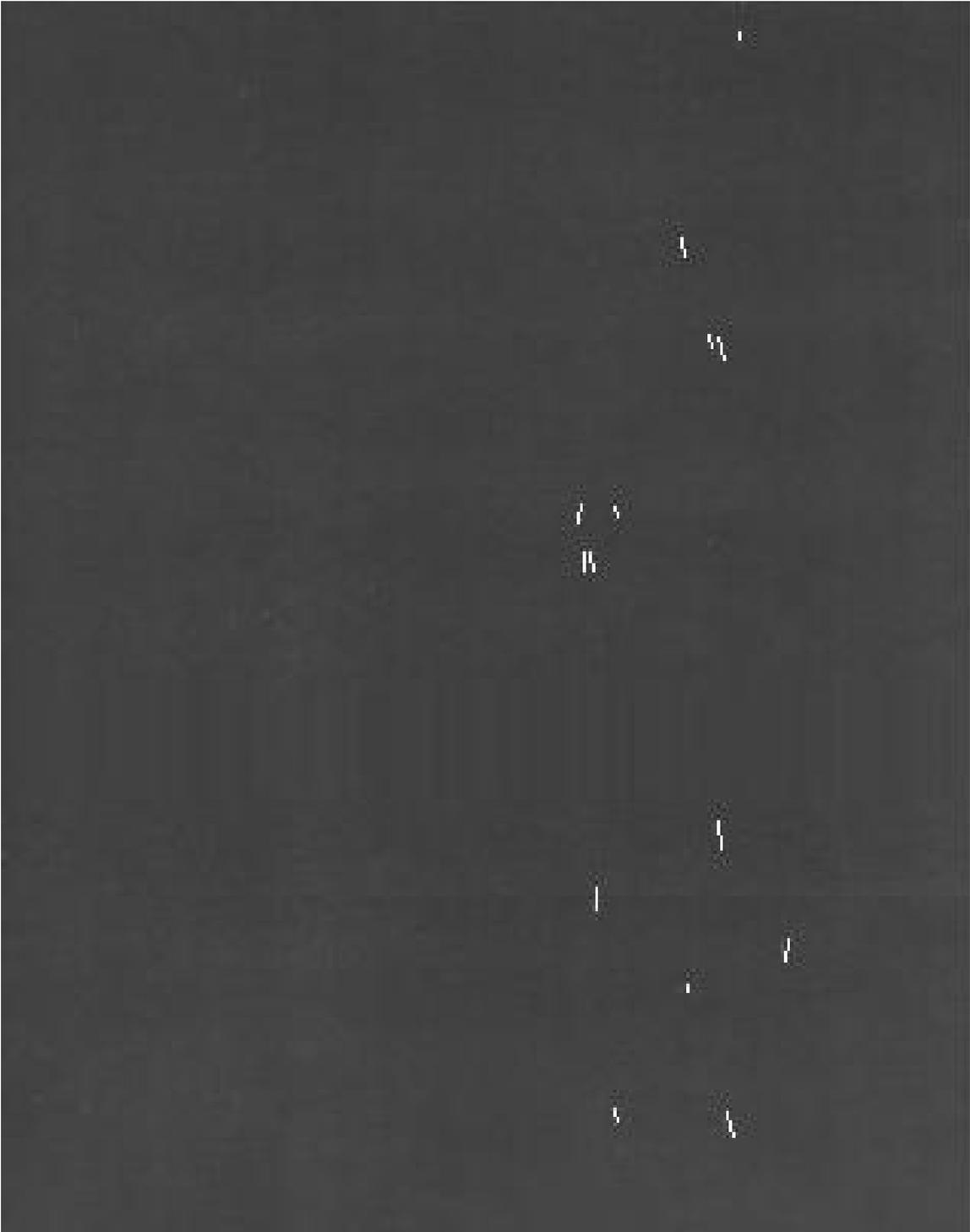


TCRUTS01A.BMP



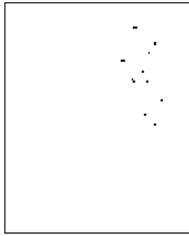
TCRUTS02.BMP

- Step 1** In the Adjustment Settings for Skilled Operators menu, press [0116: Adjust Image Quality], and then press [Reduce White Spots] and execute.
- Step 2** Make three sky shots on A3 or DLT size paper. Is the problem solved?
- Yes** Finished.
- No** Replace the photoconductor unit.
- Note:**
If the problem persists after step 1 is performed, try repeating step 1 several times.
- Step 3** If unit replacement does not solve the problem, call for service.



TCRUTS REV 1-2.JPG

1.2.3 Problem 2: Sharp Black Spots



Sharp black spots appear about 40 mm (about 1½ inches) from the trailing edge of the paper.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.



TCRUTS03A.BMP

Step 1 If appear, replace the drum in photoconductor unit.

Step 2 If unit replacement does not solve the problem, call for service.



Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 80 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after. Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

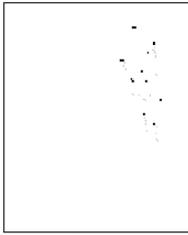
Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

6% SHEET

2001-09 13

TCRUTS REV 3.JPG

1.2.4 Problem 3: Sharp and Faint Black Spots



Sharp and faint black spots appear perpendicular to the direction of paper feed.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.



TCRUTS04A.BMP

Step 1 If appear, replace the cleaning unit for fusing unit.

Step 2 If unit replacement does not solve the problem, call for service.

RICOH

Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 80 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after. Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

6% SHEET

2001-09 13

TCRUTS REV 17.JPG

1.2.5 Problem 4: Black Stripes



TCRUTS06A.BMP

Black stripes (of 1 mm or less in thickness) appear parallel to the direction of paper feed.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

Step 1 If the stripes are curved, **replace the cleaning unit for photoconductor unit.**

Step 2 If unit replacement does not solve the problem, call for service.



Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 80 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after. Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

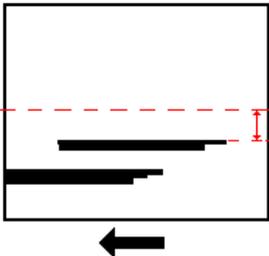


6% SHEET

2001-08 1.3

TCRUTS REV 5.JPG

1.2.6 Problem 5: Black Bands



TCRUTS07B.BMP

Black bands (of 1 mm or less in thickness) appear parallel to the direction of paper feed.

The bands are between 85 to 135 mm (3.4 to 5.4 inches) from the center of the paper.

Note:

Actual sample is not available.

Step 1 If appear, replace the fusing unit.

Step 2 If unit replacement does not solve the problem, call for service.

1.2.7 Problem 6: Light Copies



TCRUTS13A.BMP

The overall appearance of the copies is light, especially in filled areas the density is low.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

- Step 1** In the Adjustment Settings for Skilled Operators menu, press [0115: Adjust Image density] and change the image density setting.
- Step 2** Make some copies. Is the image darker?
Yes Finished.
No Replace the development unit.
- Step 3** If unit replacement does not solve the problem, call for service.

RICOH



Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 80 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after. Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

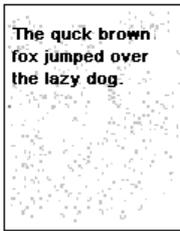


6% SHEET

2001-09 13

TCRUTS REV 12.JPG

1.2.8 Problem 7: Dirty Background



TCRUTS10A.BMP

Powdering (faint dotting) appears in the background of prints.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

Step 1 In the Adjustment Settings for Skilled Operators menu, press [0116: Adjust Image Quality] and change the image quality setting.

Step 2 Make some copies. Is the problem solved?

Yes Finished.

No Replace the development unit.

Note:

If the counter indicates that the drum is near the end of its target service life (2,500 K), replace the photoconductor unit first.

Step 3 If unit replacement does not solve the problem, call for service.

RICOH

Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 60 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

6% SHEET

2019 11

TCRUTS REV 15.JPG

1.2.9 Problem 8: Irregular Streaks



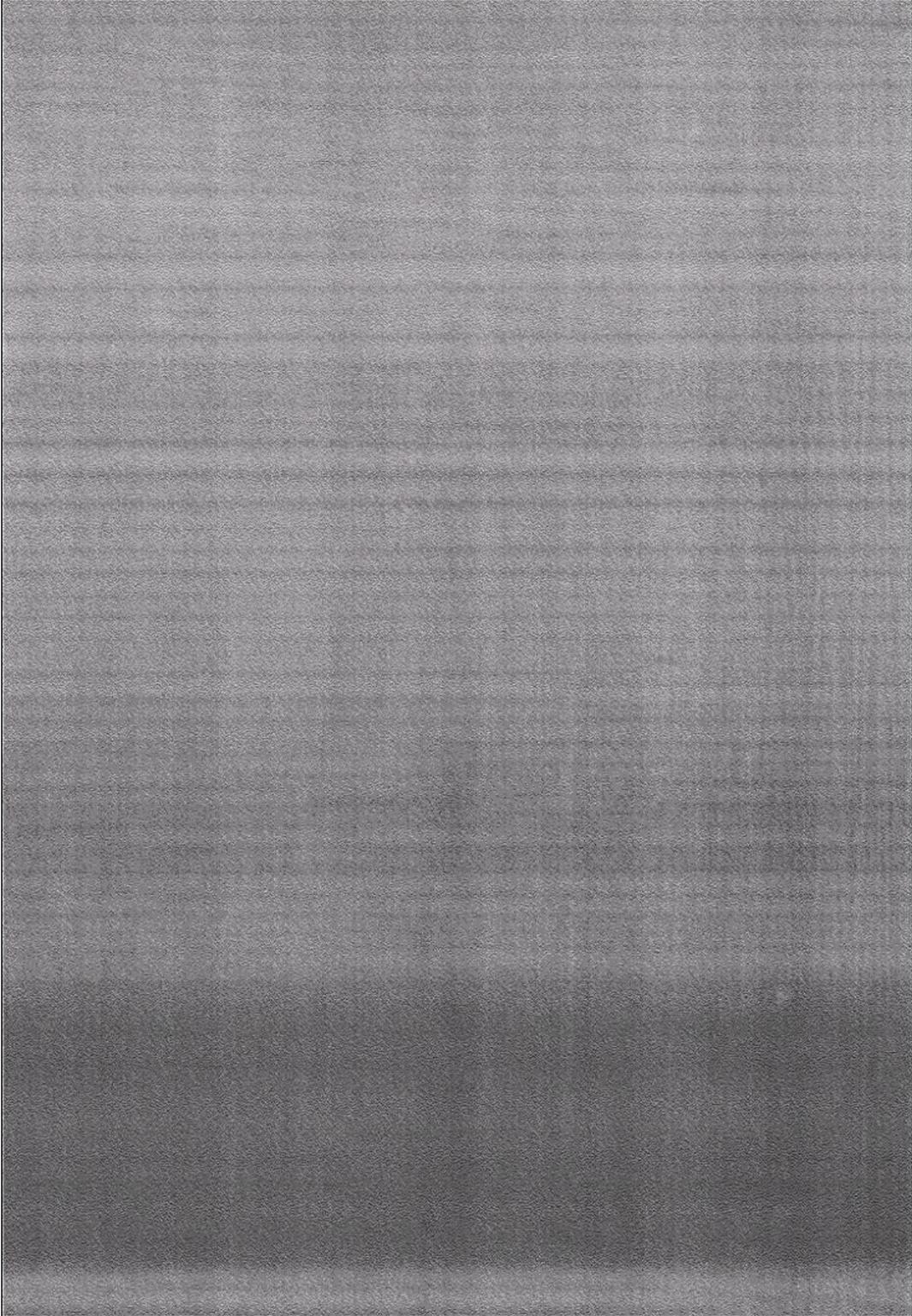
TCRUTS23.BMP

Irregular streaks appear parallel to the direction of paper feed.

Note:

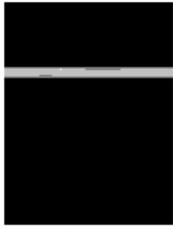
See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

- Step 1** In the Adjustment Settings for Skilled Operators menu, press [0116: Adjust Image Quality], and then press [Reduce Streaks] and execute.
- Step 2** Make some copies. Is the problem solved?
- Yes** Finished.
- No** Replace the charge unit.
- Step 3** If unit replacement does not solve the problem, call for service.



TCRUTS REV NEW4.JPG

1.2.10 Problem 9: White or Gray Band



TCRUTS21.BMP

A White or Gray band appears parallel to the direction of paper feed.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

Step 1 Make a sky shot.

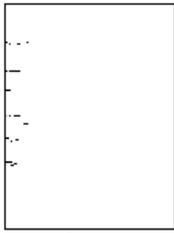
Step 2 If appear in the sky shot, **replace the development unit.**

Step 3 If unit replacement does not solve the problem, call for service.



TCRUTS REV NEW2.JPG

1.2.11 Problem 10: Streaks at Leading Edge



TCRUTS22.BMP

Dirty, irregular streaks appear at the leading edge, vertically to the direction of paper feed.

Note:

See the next page for an actual sample. The scanned image in the sample is not sized 1:1.

Step 1 If appear, replace the fusing unit.

Step 2 If unit replacement does not solve the problem, call for service.

RICOH

Concern for the environment tends to have a dual focus—conservation, on the one hand, and pollution control, on the other. In light of the delicate interrelationships binding all of nature together, however, the two should perhaps be viewed as inseparable.

The battle to avoid the greenhouse effect is a case in point. Pollution control is essential. Scientists estimate that CO₂ emissions will have to be reduced by up to 80 percent in the coming years if we are to succeed.

One major stumbling block to progress is economic. Many of the technologies necessary to cut pollution are already available. The U.S. has used technology to keep its CO₂ emissions at the same level for several years, despite considerable growth in production. Japan has imposed even stricter standards, as a result of which the air in heavily industrialized cities is far cleaner than during the developing years of the 1960s and early 1970s.

It is significant that these improvements came after. Japan had passed the development stage, since the developing countries—the ones least able to afford the new, cleaner technologies—have the most pressing need for them. Nevertheless, there are encouraging signs. Mexico City, for example, until recently enveloped constantly in smog, now enjoys an occasional day with clear skies.

The other principal aspect of battling the greenhouse effect concerns conservation. One of the main focuses here is on saving the tropical rain forests with their tremendous ability to absorb CO₂ from the atmosphere and, consequently, to limit the greenhouse effect. Efforts by corporations to save trees by using recycled paper whenever possible can make a real contribution to the battle against global warming.

Since pollution-reducing technologies are often more efficient, they can also conserve another important resource, energy. If consumption continues at present levels, the world's oil reserves will most likely be depleted by about the middle of the coming century. It is important that industries everywhere be supplied with the most efficient possible technologies to help conservation.

6% SHEET

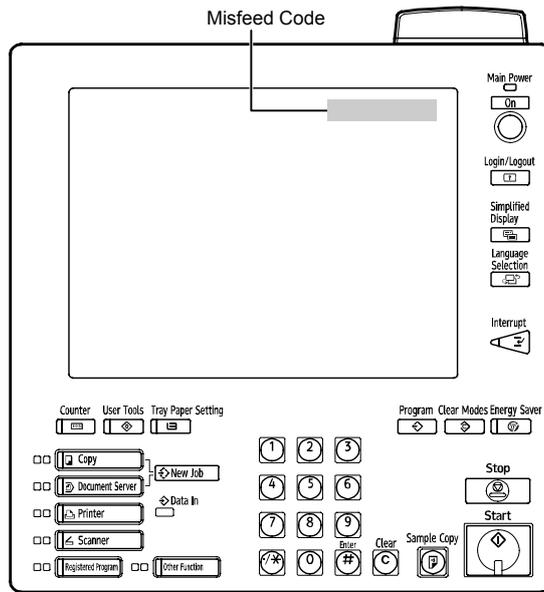
2001-09 1.3

TCRUTS REV NEW3.JPG

1.3 Misfeed Code

When a misfeed occurs:

- A misfeed code appears in the upper right corner of the display.
- The number indicates the location of the misfeed.



BTJ202.EMF

If misfeed code J003 frequently appears:

- This means a misfeed has occurred in the paper feed tray.
Try replacing the paper feed rollers.
- If misfeed code J003 appears again after replacing the paper feed rollers, call for service.

If misfeed code J021 frequently appears:

- This means a misfeed has occurred in the fusing unit.
Try replacing the fusing unit.
- If misfeed code J021 appears again after replacing the fusing unit, call for service.

