

Service Manual

Canon BW

UFRII LT PRINTER KIT-J2

Canon

Application

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


Printed in Japan

Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.



Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
 Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
 REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

In the diagrams,  represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow  indicates the direction of the electric signal.

The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.

In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."

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Chapter 1 Specifications

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1.1 Product composition

1.1.1 Operating conditions of Hardware (LCD)

- A resolution of UFR II LT can be set to either 600 dpi (128MB) or 600/1200dpi (256MB) depending on the memory installed. The 256MB RAM bundled with the PCL_PRINTER_KIT-J1 kit is the same one as a 256MB RAM, which is set as iR 256MB Expansion RAM-D1(0449B001AA).
- License authentication is not necessarily conducted at the time of installation.
- In order to use UFR II LT, the Network board supplied with the kit is necessary.
- PCL Printer Kit-J1 should be installed after installing UFR II LT.

Main body configuration and Accessories

In iR2020/2016, some models that have not been provided with extended capabilities at shipment are either the ones that system accessories can be added or the others that they cannot be done.

The followings are the models that accessories cannot be added.

T-1-1

Non Upgradeable Model							
Merchandise control name	iR2020J 230V	iR2020J CN 220V	iR2016J 120V	iR2016 EUR 230V	iR2016J 230V	iR2016J CN 220V	iR2016J KR 220V
Point of destination	CSPL	CH	CLA	EUR/Saudi FRN GER ITA UK	CSPL CLA	CH	KR
Product number of main body	F18-8945	F18-8965	F18-8939	F18-8999	F18-8949	F18-8969	*TBD
UFR II LT Printer kit-J2 Network Board	Not Available						
PCL Printer kit-J1							
256MB RAM							

*TBD: to be determined

The followings are the models that accessories can be added.

iR2016(Upgradeable Model)

T-1-2

16ppm	Copy			Copy/Print			
Merchandise control name	iR2016 EUR 230V	iR2016 AU 230V	iR2016 KR 220V	iR2016 120V	iR2016 230V	iR2016 CN 220V	iR2016 TW 120V
Point of destination	EUR/Saudi FRAN GER ITA UK	CA	KR	USA Canada CLA	CHK CSPL CLA	CH	TW
Product number of main body	F18-8991	F18-8961	TBD	F18-8932	F18-8941	F18-8960	F18-8901
UFR II LT Printer kit-J2 Network Board	Option			Standard			
PCL Printer kit-J1				Option			
256MB RAM*	Not Available			Not Available	Option		

The 256MB RAM bundled with the PCL_PRINTER_KIT-J1 kit is the same one as a 256MB RAM, which is set as iR 256MB Expansion RAM-D1(0449B001AA).

20ppm	Copy			Copy/Print			
Merchandise control name	iR2020 EUR 230V	iR2020 AU 230V	iR2020 KR 220V	iR2020 120V	iR2020 230V	iR2020 CN 220V	iR2020 TW 120V
Point of destination	EUR/Saudi FRAN GER ITA UK	CA	KR	USA Canada CLA	CHK CSPL CLA	CH	TW
Product number of main body	F18-8993	F18-8963	TBD	F18-8934	F18-8943	F18-8968	F18-8903
UFR II LT Printer kit-J2 Network Board	Option			Standard			
PCL Printer kit-J1				Option			
256MB RAM*	Not Available			Not Available	Option		

The 256MB RAM bundled with the PCL_PRINTER_KIT-J1kit is the same one as a 256MB RAM, which is set as iR 256MB Expansion RAM-D1(0449B001AA).

1.2 Specifications

1.2.1 Specifications of UFR II LT Printer Driver

1. Support Environment (OS/Software)

Microsoft Windows 2000 Professional/Server
 Microsoft Windows XP Home Edition/Professional Edition
 Microsoft Windows Server 2003 (32bit edition)
 Microsoft Windows 98 (Second Edition)
 Microsoft Windows Millennium Edition

2. Font Handling

Device fonts are not used as the printing uses the UFR II driver.

GDI raster fonts cannot be used - e.g.

One Byte - Courier, MS Sans Serif, and MS Serif.
 Two Byte - FixedSys, System, Small Fonts, Terminal
 GDI vector fonts can be used - e.g.
 One Byte - Modern, Roman, and Script.

TureType fonts can be used - e.g.

One Byte - Arial, Courier New, Symbol, Times New Roman

Note:

Each font becomes usable by the font addition to Windows.

3. Paper Size

Standard-size types of paper to be supported are described below.

T-1-4

Paper Name	Paper Size (mm)	
	Width	length
A3	297.0	420.0
B4	257.0	364.0
A4	210.0	297.0
B5	182.0	257.0
A5	148.5	210.0
11 x 17	279.4	431.8
LEGAL	215.9	355.6
LETTER	215.9	279.4
STATEMENT	139.7	215.9
EXECUTIVE	184.2	266.7
COM 10	104.7	241.3
MONARCH	98.4	190.5
C5 ISO	162.0	229.0
B5 ISO	176.0	250.0
DL	110.0	220.0

4. Non-default paper

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User-defined paper	iR2020/2016
minimum	95.0 x 148.0 mm
maximum	297.0 x 431.8 mm

Area-Specific Paper Sizes:

In addition to default paper sizes (A4/LTR) and user-defined paper sizes, the printer driver supports area-specific paper sizes (e.g., Officio), and it handles these area-specific paper sizes as user-defined paper sizes, requiring the user to register them in advance of use. To do so, see the instructions on registering user-defined paper sizes for individual operating systems.

When an area-specific paper size is manually set up under [Form to Tray Assignment] of the driver UI, or if the size obtained by running dynamic configuration happens to be an area-specific paper size, the driver operates in the corresponding mode. After performing all associated internal operations, the driver runs a check of area-specific paper sizes stored as user defined paper sizes, and handles any matching paper as a default paper size (special paper ID) instead of as a user-defined paper size. Moreover, the driver permits registration of multiple area-specific paper sizes, treating them as a separate paper group. The driver UI handles them using specifications designed for LTR paper, permitting the use of finisher functions, which were previously offered for user-defined paper sizes (except the use of the

middle binding function). Although it will permit all settings, the printer unit may ignore some of the settings. (The printer driver will simply ignore them, not issuing conflicts.)

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Paper size		Dimensions(mm)	
		Width	Height
Oficio	OFI	216.0	317.0
Ecuadorian Oficio	E_OFI	220.0	320.0
Bolivia Oficio	B_OFI	216.0	355.0
Mexican Oficio	M_OFI	216.0	341.0
Argentina Oficio	A_OFI	220.0	340.0
Folio	FOLIO	210.0	330.0
Argentina Letter	A_LTR	220.0	280.0
Government Letter	G_LTR	203.0	267.0
Government Legal	G_LGL	203.0	330.0
Australian Foolscap	A_FLSP	203.0	337.0
Foolscap	FLSP	206.0	330.0
8K	8K	297.0	390.0
16K	16K	195.0	270.0

**UFR II LT
Effective print area**

T-1-7

	Effective print area(mm)		End of Paper(mm)	
	Main scanning	Sub scanning	Main scanning	Sub scanning
Minimum	85.00	138.00	5.00	5.00
Maximum	287.00	421.80	5.00	5.00

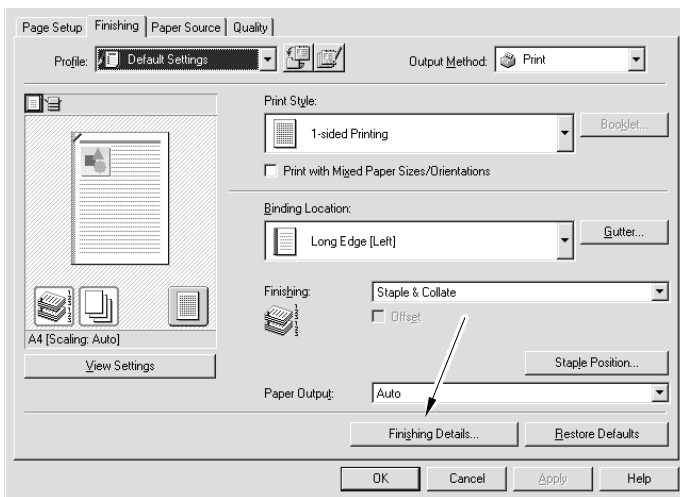
The size of the printable area is the one that excludes a margin of 10mm from the edge of envelope.

0mm mode

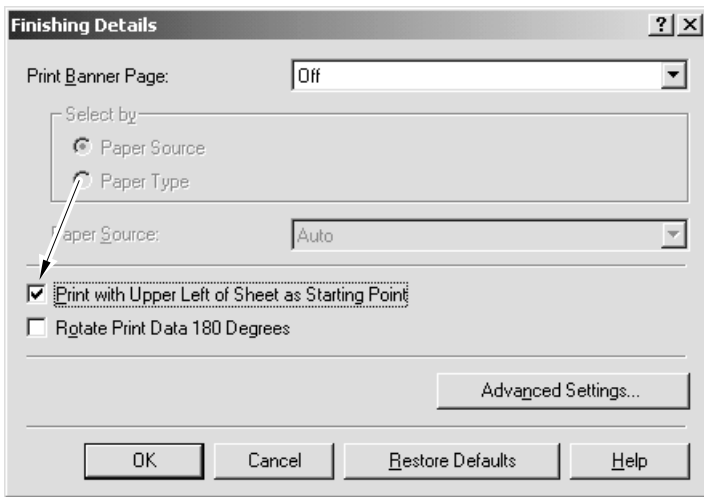
T-1-8

	0mm Mode(mm)			
	Effective print area		End of Paper	
	Main scanning	Sub scanning	Main scanning	Sub scanning
Minimum	89.00	142.00	3.00	Top:3.00,Bottom3.00
Maximum	291.00	425.80	3.00	Top:3.00,Bottom3.00

UFR II LT as a printing description language does not have a concept of printable area. The printable area from the edge of the paper is decided depending on the limitations of the hardware of the iR main body.



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F-1-2

5. Supported Paper Types

T-1-9

Paper Type	Paper Size
PLAIN COLOR RECYCLED HEAVY	A3, B4, A4/A4R, B5/B5R, A5/A5R, 11x17, LGL, LTR/LTRR, STMT/STMTR, EXEC, Oficio, User-defined paper
BOND LABELS	A3, B4, A4/A4R, B5/B5R, A5/A5R, 11x17, LGL, LTR/LTRR, STMT/STMTR, EXEC, User-defined paper
OHP	A4, LTR
3-hole Punch	LTR/LTRR
Envelope	COM10, MONARCH, C5ISO, B5ISO, DL

6. Finishing

T-1-10

Finisher	Shift	Staple
None	N/A	N/A
Inner 2way Tray	N/A	N/A
Finisher-U1	OK	OK

N/A : not available.

7. Resolution

Fine (600dpi) / Super fine (1200dpi)

Super fine (1200dpi) can be selected only when the installed memory is 256MB.

1.2.2 Specifications

UFR II LT is compatible with both of new OS and the existing ones.

It is compatible with Windows98 (Second edition) by using the image mode processing of all internal ones of UFR II.

It is also compatible with Mac OS X, new operating system.

T-1-11

Specification	
	UFR II LT
Data processing	600dpi(128MB RAM)/1200dpi(256MB RAM)
Effective printable area	main scanning:5.0mm sub scanning:5.0mm
Supported operating systems	Windows 98(Second Edition) Windows millennium Edition
	Windows 2000 Professional/Server/Advanced Server
	Windows XP Home Edition/Professional Edition
	Windows Server 2003 Standard Edition/Enterprise Edition (32 bit Edition)
	Mac OS X v10.1.5 - V10.3.8

Chapter 2 Functions

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2.1 New Function

2.1.1 Special function to thin line

Special function to thin line

In the process of resolution change from original to printer driver, some of 1 dots may be omitted. In this case, the faulty occurs, for instance, a continuous line is printed as a dotted line.

Use conditions:

The memory of the iR main body should be upgraded to 256MB in order to select this function.

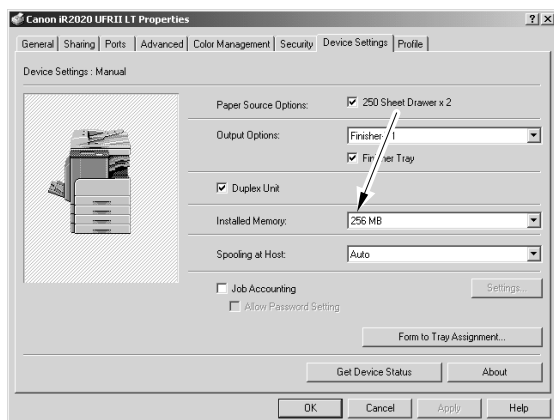
This function uses a method that 1 dot is drawn as 2 dots by the setting on the printer driver, and that can prevent image losses.

The memory should be set to 256 MB in options on the printer driver.

The resolution in the printing quality on the printer driver should be set to 1200 dpi.

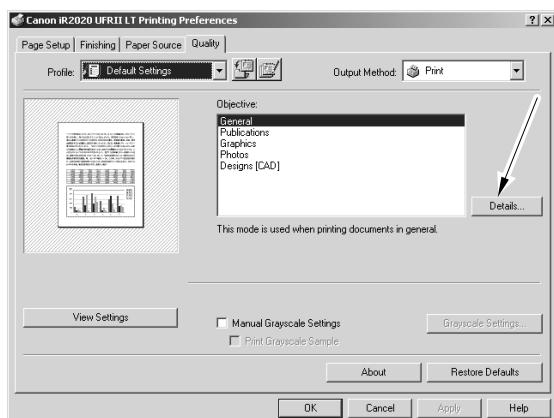
Special function to thin line in the finishing on the printer driver should be selected.

Device Settings > Installed Memory > 256MB

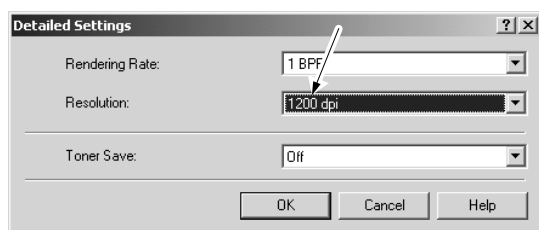


F-2-1

Quality > Details.. > Resolution : 1200dpi

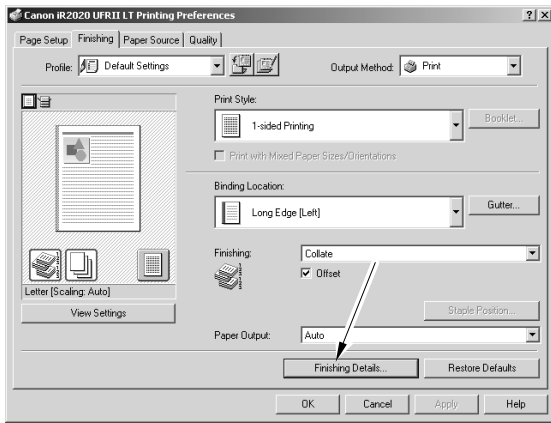


F-2-2

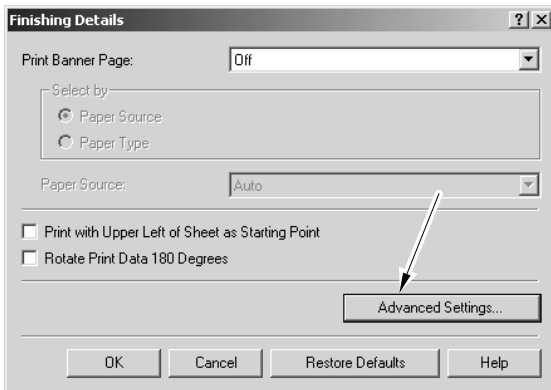


F-2-3

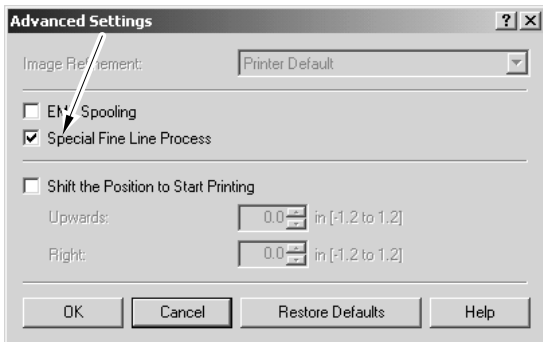
Finishing > Finishing Details.. > Advanced Settings.. > Special Fine Line Process



F-2-4



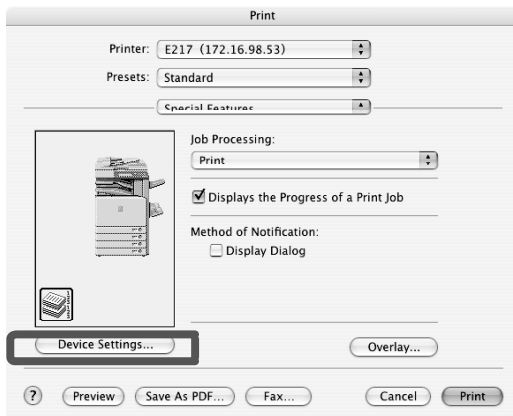
F-2-5



F-2-6

2.1.2 Device setting (Mac OS X)

When printing by using USB connection cable from the PC running on Mac OS X, it is impossible to obtain device information and automatically set the configuration, such as sorter or paper deck, as the iR main body can provide only one-way communication. Printing, therefore, should be done with the button of Device Settings on the printer driver.



F-2-7

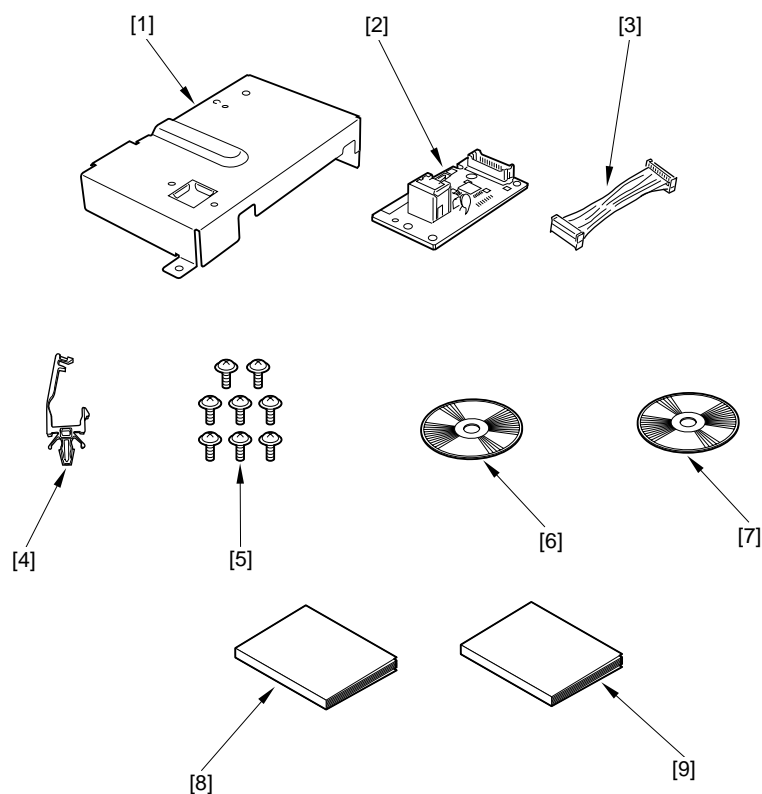
Chapter 3 Installation

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3.1 Checking components

3.1.1 Checking the Contents



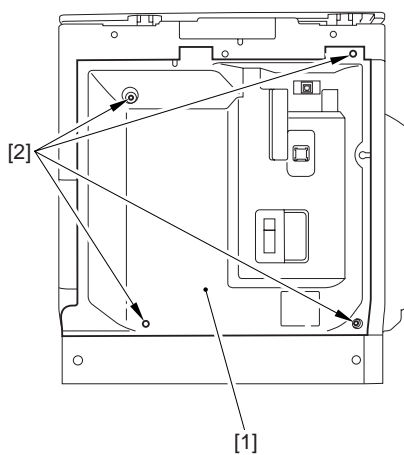
F-3-1

[1]	LAN cover	1 pc.	[6]	User Software CD-ROM	1 pc.
[2]	LAN PCB	1 pc.	[7]	User Manual CD-ROM	1 pc.
[3]	IP-LAN cable	1 pc.	[8]	Release Note	1 pc.
[4]	Wire saddle	1 pc.	[9]	Network Quick Start Guide	1 pc.
[5]	TP screw (3x8)	8 pc.			

3.2 Installation procedure

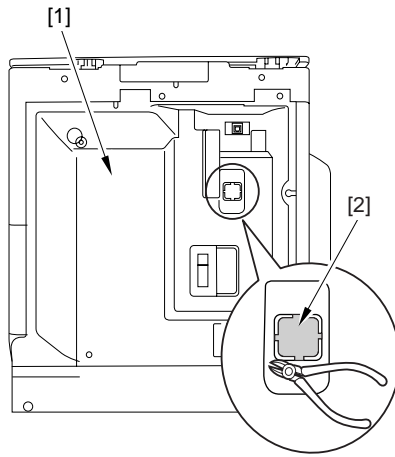
3.2.1 Mounting to the iR Machine

- 1) Turn off the main power switch, and disconnect the power plug from the power outlet.
- 2) Remove the machine's rear cover [1].
- 4 screws [2]



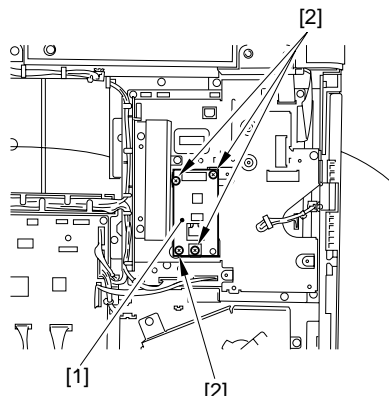
F-3-2

- 3) Cut off the area [2] of the rear cover [1] indicated in the figure using nippers.



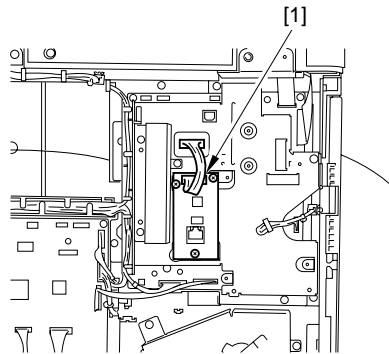
F-3-3

- 4) Mount the LAN board [1].
- 4 TP screws (3x8)



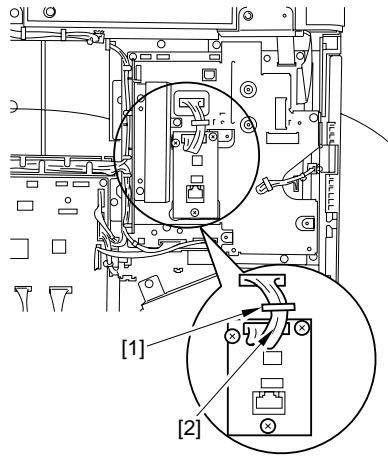
F-3-4

- 5) Connect the LAN board and the IP board.
- 1 IP-LAN cable [1]



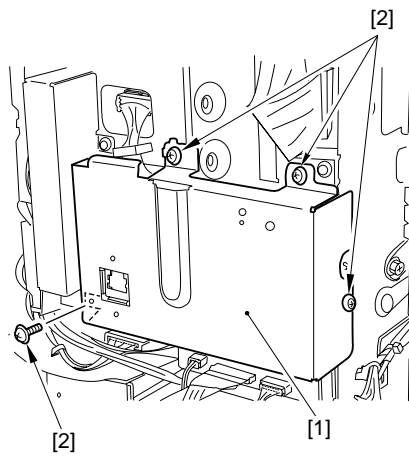
F-3-5

- 6) Fit the wire saddle (black) [1] in place, and fit the IP-LAN cable [2] in it.



F-3-6

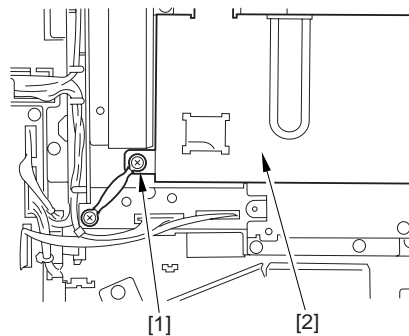
- 7) Mount the LAN cover [1].
- 4 TP screws (3x8) [2]



F-3-7

⚠ Points to Note When Attaching the LAN Cover

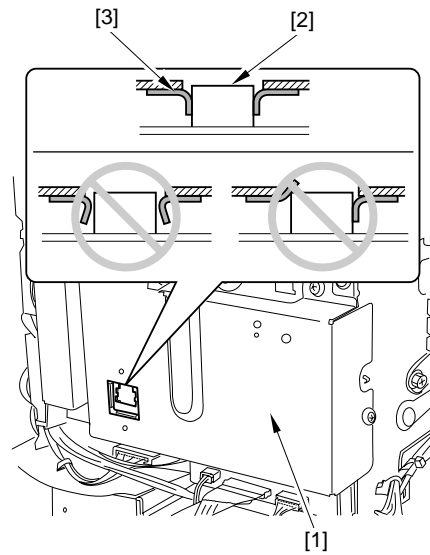
A grounding wire is fitted to the IP machine's IP PCB and IP cover. When attaching the LAN cover, be sure to remove the screw [1] from the wire, and tighten the screw over both the wire and the LAN cover [2].



F-3-8

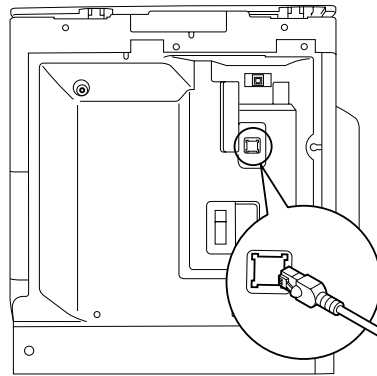


When mounting the LAN cover [1], take care so that the grounding plate [3] will not be bent by the LAN board [2]. Also, after mounting the cover, check to be sure that the grounding plate is in firm contact with the LAN board.



F-3-9

- 8) Put back the machine's rear cover you removed in step 2).
- 9) Connect the user's LAN cable to the machine.



F-3-10

- 10) Connect the power plug to the power outlet, and turn on the main power switch.

3.2.2 Checking the Connection

At the end of the work, go through the following steps to make sure that the machine properly recognizes the presence of the unit:

- 1) Start service mode.
User Mode key >2 > 8 > User Mode key
[#SSSW] appears.
- 2) Press [-] 5 times. When [REPORT] has appeared, press [OK].
- 3) Press [+>] once. When [REPORT OUTPUT] has appeared, press [OK].
- 4) Press [+>] 5 times. When [SPEC LIST] has appeared, press [OK].
- 5) See that a SPEC REPORT is printed out. Check to be sure that 'BDL-IMAGE' is 'ON'.

MEMO:

"SPEC REPORT"

- If 'TOTAL MEMORY' is 128 MB,
be sure 'BDL-IMAGE (600)' is 'ON'.
- If 'TOTAL MEMORY' is 256 MB,
be sure 'BDL-IMAGE (1200)' is 'ON'.

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