

# Installation Procedure

## **Finisher, Sorter, DeliveryTray Punch Unit-X1**





## Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

## Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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## Caution










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

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## Symbols Used

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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.
	Indicates an item intended to provide notes assisting the understanding of the topic in question.
	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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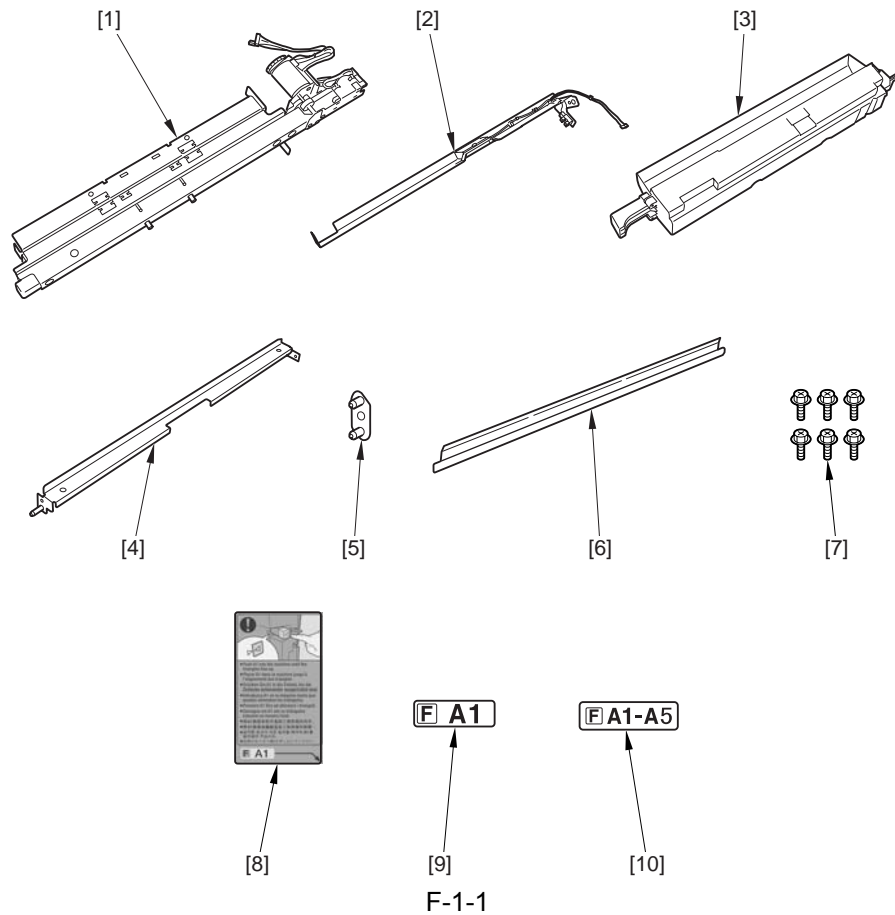
# Chapter 1 Installation Procedure

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# 1.1 Making Pre-Checks

## 1.1.1 Checking the Contents

0011-4091



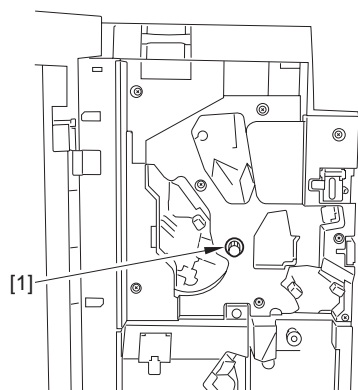
[1]	Punch unit	1 pc.	[6]	Plastic sheet	1 pc.
[2]	Punch dust full sensor unit	1 pc.	[7]	Screw (RS tightening; M4x8)	6 pc.
[3]	Punch waste case	1 pc.	[8]	Operation instructions label	1 pc.
[4]	Punch rail	1 pc.	[9]	Jam removal instructions label	1 pc.
[5]	Positioning pin	1 pc.	[10]	Punch map label	1 pc.

## 1.2 Installation Procedure

### 1.2.1 Installation Procedure

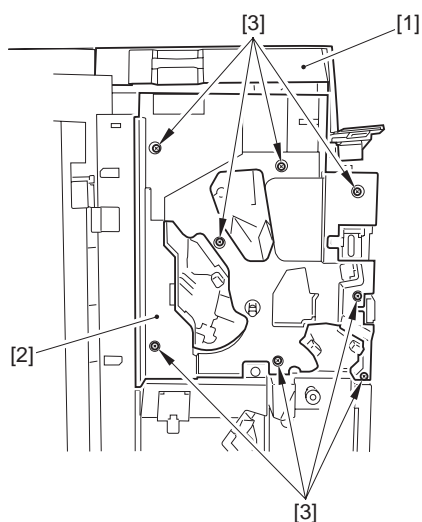
0011-4234

- 1) Open the front cover of the finisher.
- 2) Remove the knob [1] found on the inside cover (upper).



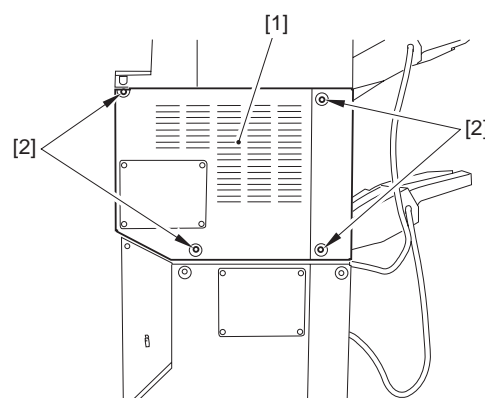
F-1-2

- 3) Lift the upper cover [1], and detach the inside cover (upper) [2].  
- 8 screws [3]



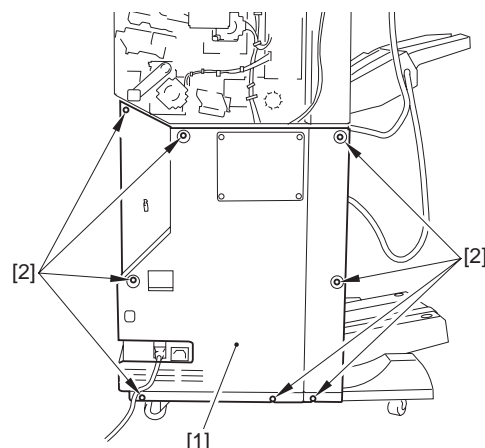
F-1-3

- 4) Remove the middle rear cover [1].  
- 4 screws [2]



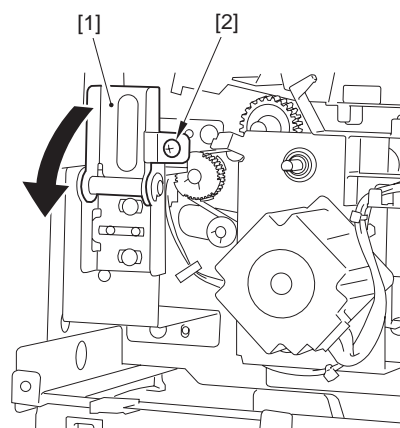
F-1-4

- 5) Remove the lower rear cover [1].  
- 8 screws [2]



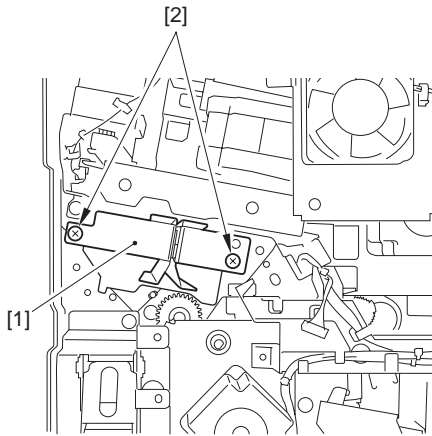
F-1-5

- 6) Remove the screw [2] from the latch base (rear) [1], and shift it toward the front.



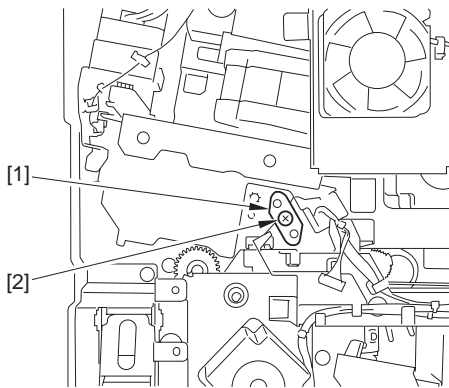
F-1-6

- 7) Slide the guide [1] toward the front to detach. (The removed guide will no longer be used.)  
- 2 screws [2]



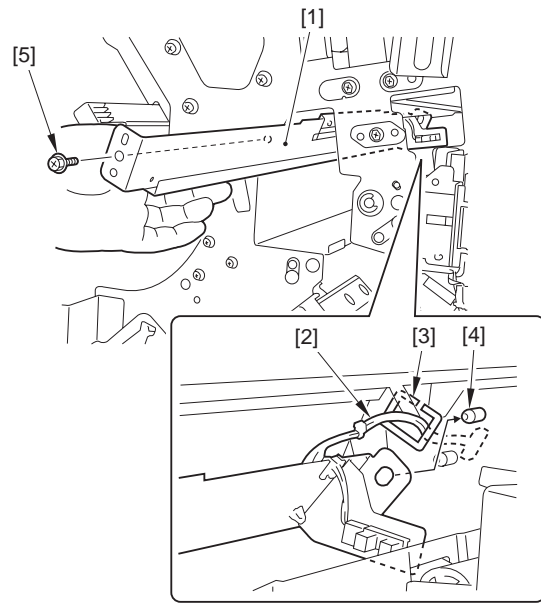
F-1-7

- 8) Fit the positioning pin [1].  
- 1 screw (RS tightening; M4x8) [2]



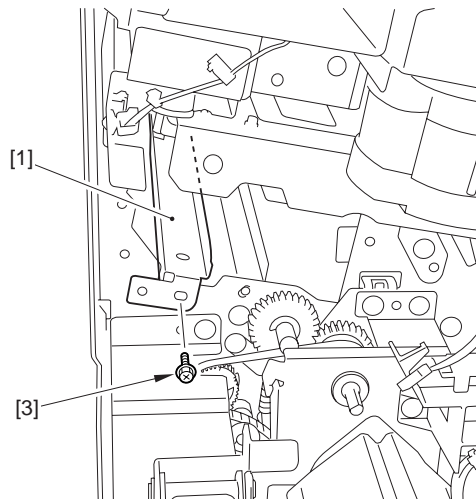
F-1-8

- 9) Insert the puncher dust full sensor unit [1] from the front, pass the cable [2] through the wire clip [3], and plug the cable to the positioning pin [4] to mount.  
- 1 screw (RS tightening; M4x8) [5]

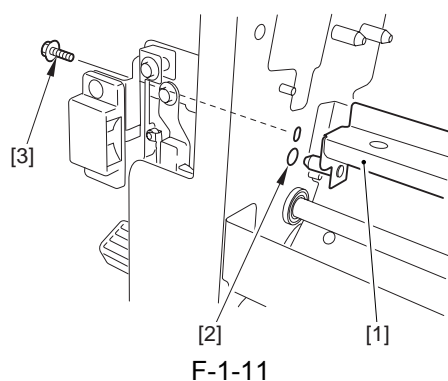


F-1-9

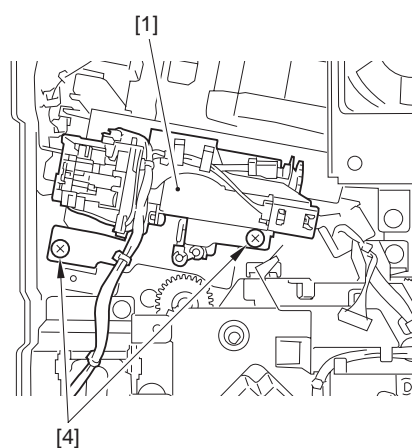
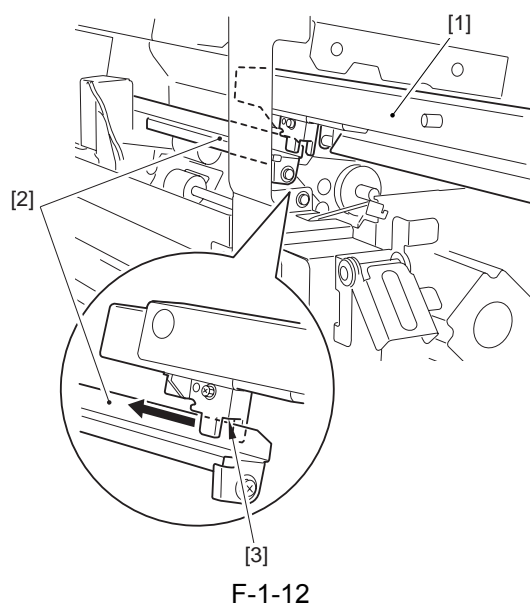
- 10) Insert the punch rail [1] from the rear, and fix it in place by fitting it to the hole [2] found in the front of the finisher.  
- 2 screws (RS tightening; M4x8) [3] (front, rear)



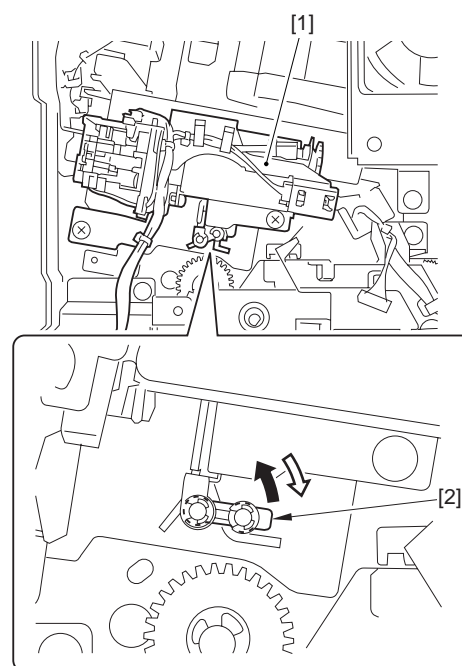
F-1-10



- 11) Mount the punch unit [1] from the rear by matching its groove [3] with the punch rail [2].  
- 2 screws [4] (from step 7))

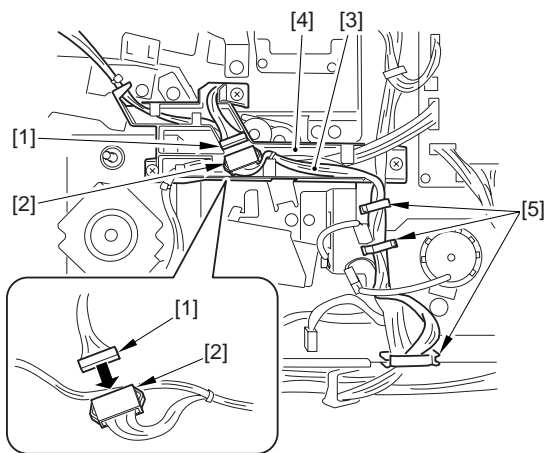


After mounting the puncher unit [1], ensure that the trailing edge stopper [2] can move up and down smoothly.



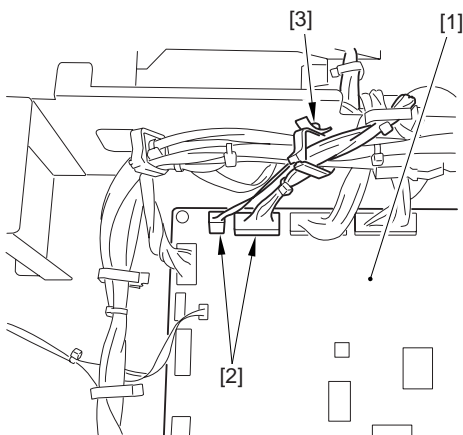
- 12) Connect the connector [1] of the punch case full sensor unit with the connector [2] of the punch unit; then, fix the cable in place [3].

- 1 cable guide [4]
- 3 cable clamps [5]



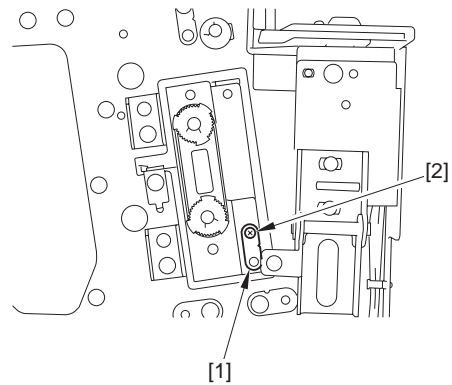
F-1-15

- 13) Connect the 2 connectors [2] to the Finisher controller [1], and route it through the cable clamp [3].



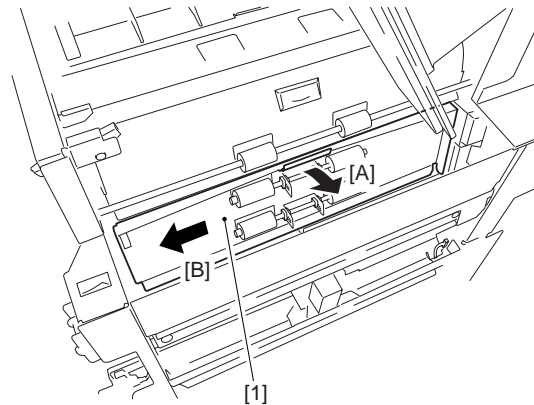
F-1-16

- 14) Remove the pin [1] of the shift roller unit.  
- 1 screw [2]



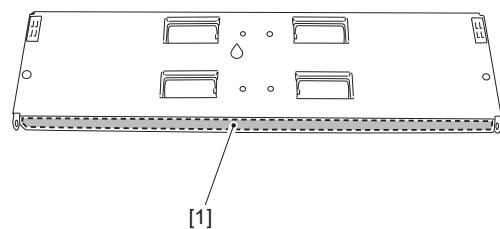
F-1-17

- 15) Open the upper cover; then, shift the guide plate [1] of the shift roller unit in the direction of [A] to detach in the direction of [B].



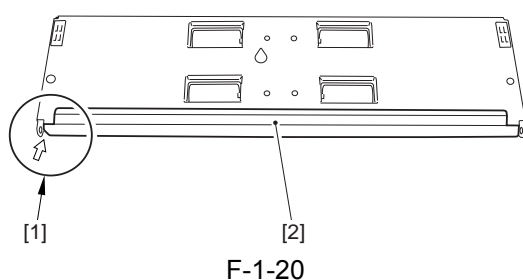
F-1-18

- 16) Using alcohol, clean the surface [1] on which the plastic sheet of the guide plate will be attached.

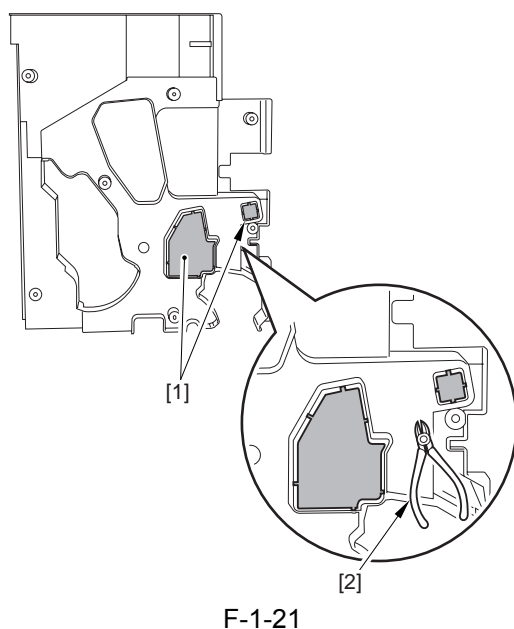


F-1-19

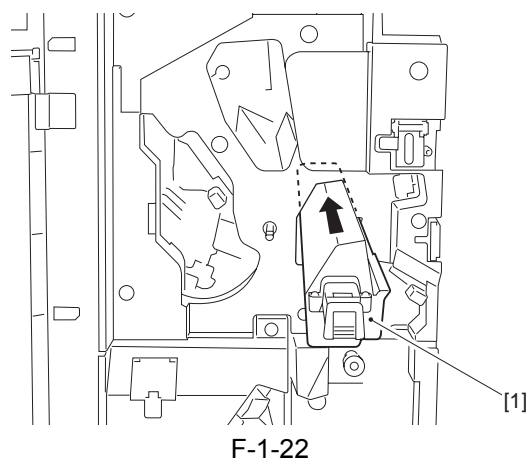
- 17) Match the cut-off [1] found in the lower left of the guide plate, and attach the plastic sheet [2].



- 18) Mount the guide plate.
- 19) Fit the pin of the shift roller unit in place.
- 20) Cut off the 2 points of the face area [1] found on the inside front cover (upper) using nippers [2].



- 21) Attach the inside cover (upper) and the knob.
- 22) Fit the punch waste case [1] from the front.



- 23) Close the front cover.
- 24) Attach the lower rear cover and the rear center cover.
- 25) Connect the unit with the host machine by referring to the "Finisher Installation Procedure".

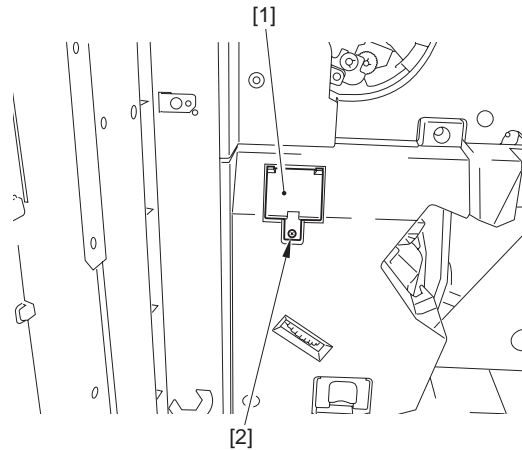
## 1.3 Making Adjustments

### 1.3.1 Setting the Punch Operation

0011-4329

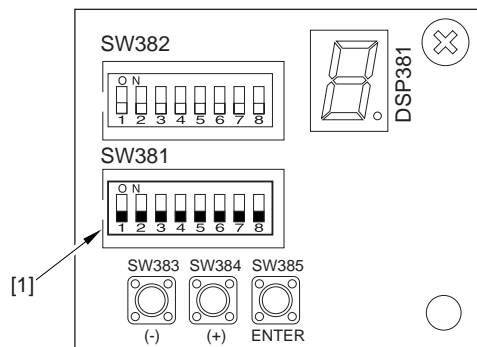
Some models of punch units call for a change the setting of the DIP switch on the switch PCB found in the finisher.

- 1) Open the front cover, and remove the switch cover [1] of the inside cover (lower).  
- 1 screw [2]



F-1-23

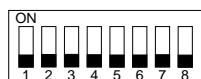
- 2) Set the DIP switch SW381 [1] of the switch PCB as follows:



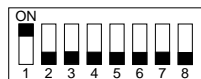
F-1-24



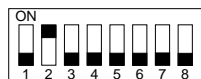
## SW381



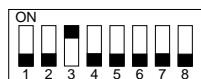
punch unit not used



2-hole punch unit used



2-/3-hole punch unit used



4-hole (French) punch unit used



4-hole (Sweden) punch unit used

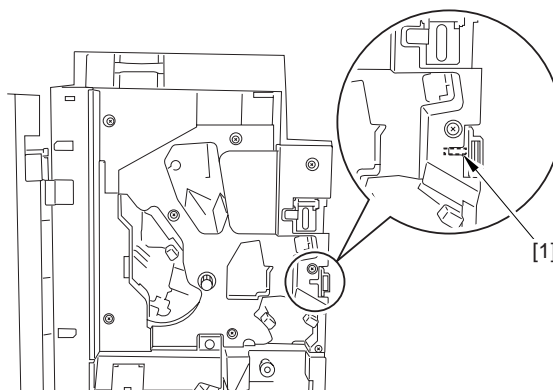
F-1-25

- 3) Mount the switch cover, and close the front cover.
- 4) Turn on the finisher and then the host machine in the order indicated.
- 5) Set the punch operation on the host machine's control panel, and check the punching operation.

## 1.3.2 Checking the Sensor Light Intensity

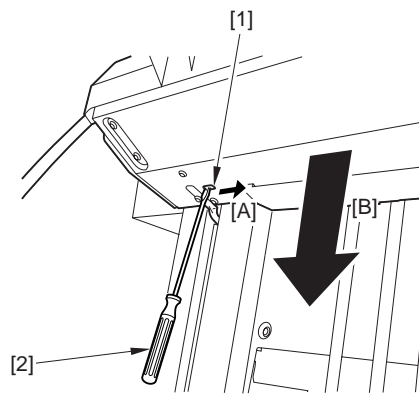
0011-6976

- 1) Turn on the finisher and then the host machine in the order indicated.
- 2) Open the front cover, and fit the door switch actuator into the door switch [1].



F-1-26

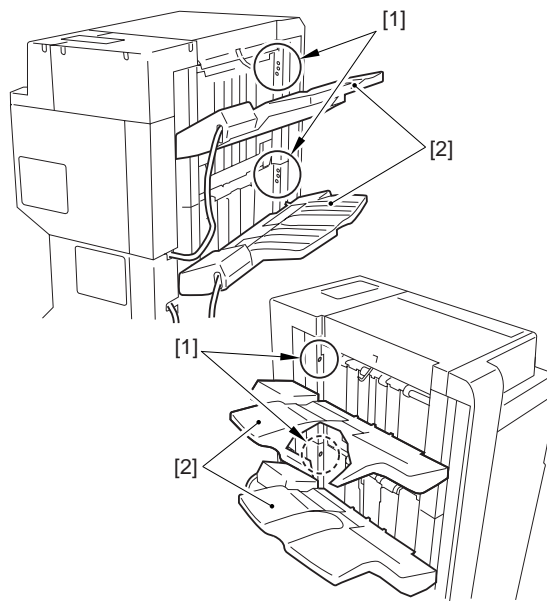
- 3) Insert a screwdriver [2] into the hole [1] found at the bottom of the tray; then, turn in the direction of [A] to move down the tray A/B in the direction of [B].



F-1-27



Be sure to move down the tray A/B [2] as far as where it will not block the tray sensor (front/rear) [1].

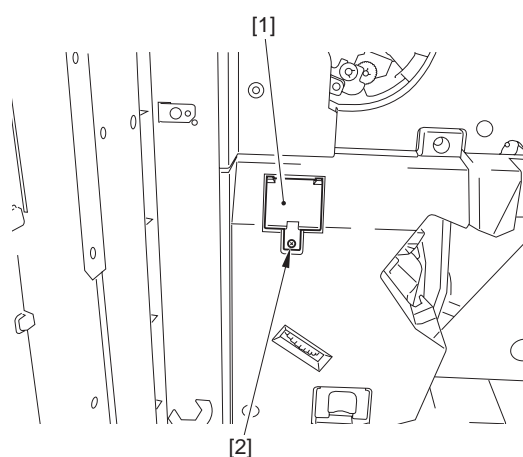


F-1-28

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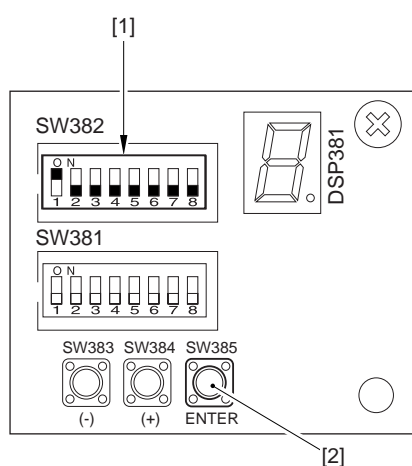
4) Remove the switch cover [1] of the inside cover (lower).

- 1 screw [2]



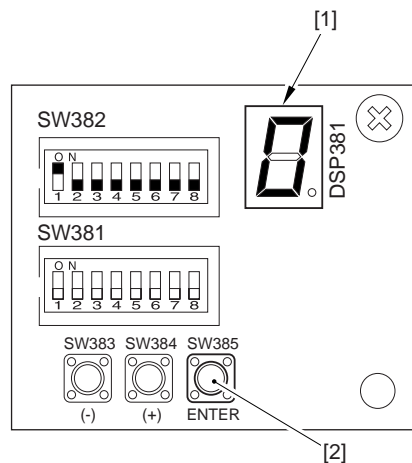
F-1-29

- 5) Set the DIP switch SW382 [1] of the switch PCB as shown (1: ON); then, press the ENTER button (SW385) [2] to start sensor light intensity adjustment.



F-1-30

- 6) Make sure that the LED [1] lights up when '0' is displayed.



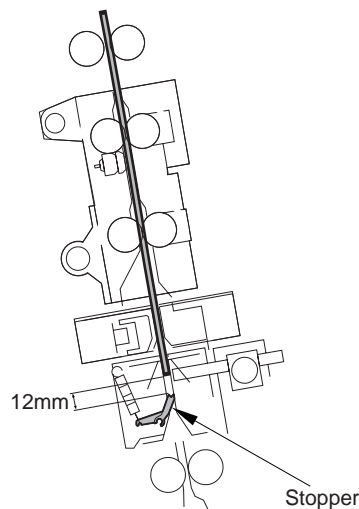
F-1-31

- 7) Press the ENTER button to end adjustment mode.
- 8) Put the DIP switch back to its initial setting; then, attach the switch cover, and close the front cover.

### 1.3.3 Adjusting the Paper Stop Position

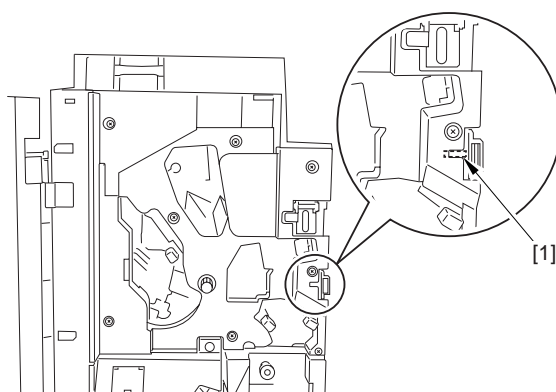
0011-6977

Adjust the paper stop position so that the distance from the center of the punch hole to the stopper is 12 mm, thereby making sure that the paper will be always free of the skew.



F-1-32

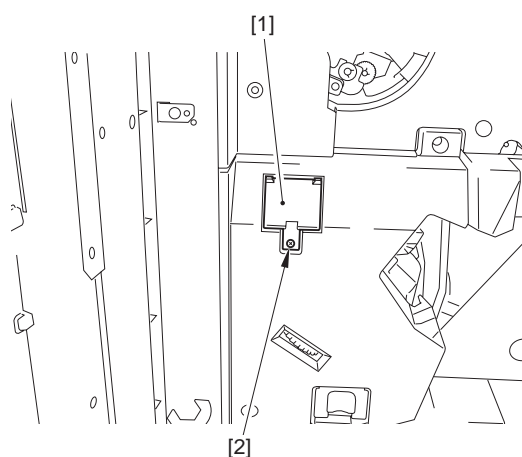
- 1) Turn on the finisher and then the host machine in the order indicated.
- 2) Open the front cover, and fit the door switch actuator into the door switch [1].



F-1-33

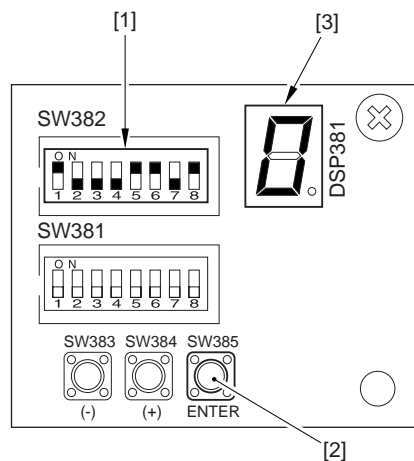
3) Remove the switch cover [1] of the inside cover (lower).

- 1 screw [2]



F-1-34

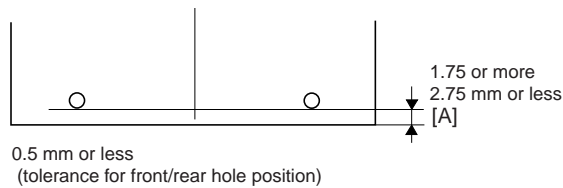
4) Set the DIP switch SW382 [1] of the switch PCB as shown (1, 5, 6, 8: ON); then, press the ENTER button (SW385) [2] so that '0' is indicated by the LED [3].



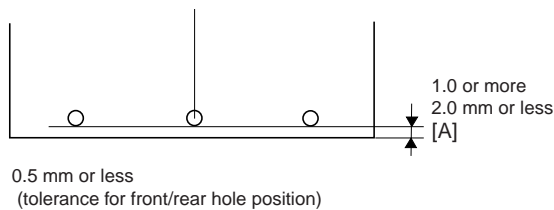
F-1-35

- 5) Cause the machine to execute punching. The machine will stop the paper without switching it back, and punching will take place.
- 6) On the punched paper, measure the distance between the hole and the paper edge [A], and find out the paper stop position from the result. Then, press the +/- button (SW384/SW383) so that the measurements will be as follows:

## 2-/4-Hole



## 2-/3-hole



F-1-36

## T-1-1

	Paper stop position	Adjustment value
+(SW384)	increase	single press: 0.4 mm
-(SW383)	decrease	

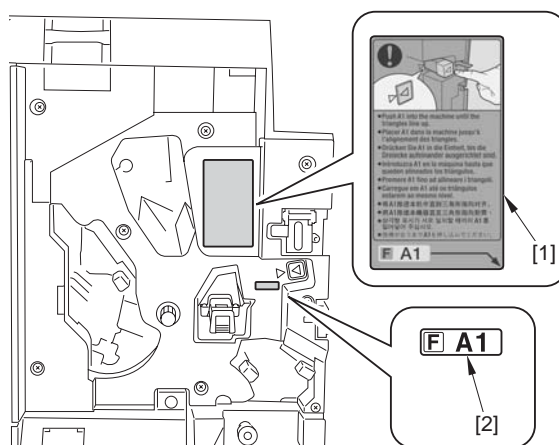
- 7) Execute punching once again to make a check.  
If the result is not good, make the foregoing adjustments once again, repeating until the result is good. If good, press the ENTER button to end adjustment.
- 8) Put the DIP switch back to its initial setting; close the switch cover, and close the front cover.

## 1.4 Attaching the Labels etc.

### 1.4.1 Attaching the Various Labels

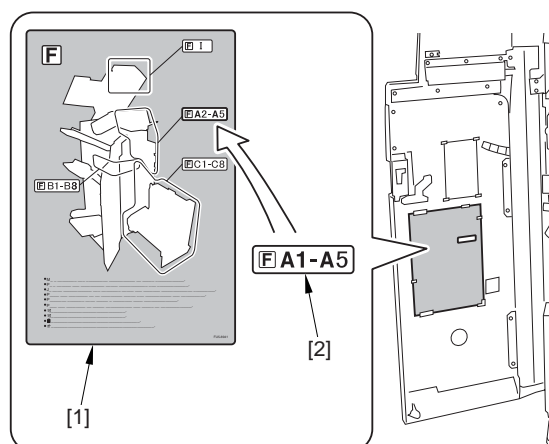
0011-6927

- 1) Open the front cover.
- 2) Attach the Operation instructions label [1] and the Jam Removal instructions label [2] to the inside cover (upper).



F-1-37

- 3) Attach the punch map notation label [2] to the guide map label [1] behind the front cover.



F-1-38





Feb 7 2006

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