

# Quick Guide

## Label Printer CT400i Series

Thank you for purchasing the SATO CT400i Series barcode printer. Please read this manual carefully to ensure you understand the CT400i Series functions and how to operate it properly.

English

German

Chinese

Korean



### CT400iDT Series

Thermosensitive type  
203dpi/305dpi/600dpi

### CT400iTT Series

Thermal transfer type  
203dpi/305dpi/600dpi



\* Be sure to use SATO genuine parts  
(labels, ribbons).



\*Q02073000\*

## FCC WARNING

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



AC power cord with ferrite core must be used for RF interference suppression.

# Safety Precautions

This section describes how to use the printer safely. Be sure to read it carefully before using the printer.


## Pictographic Symbols

This instruction manual and the printer labels uses a variety of pictographic symbols to facilitate safe and correct use of the printer and to prevent injury to others and property damage. The symbols and meanings for them are given below. Be sure to understand these symbols well before reading the main text.


 <b>Warning</b>	Ignoring the instructions marked by this symbol and erroneously operating the printer could result in death or serious injury.
 <b>Caution</b>	Ignoring the instructions marked by this symbol and erroneously operating the printer could result in injury or property damage.

## Example Pictographs





















The  pictograph means "Caution is required." A specific warning symbol is contained inside this pictograph (The symbol at left is for electric shock).



The  pictograph means "Should not be done." What is specifically prohibited is contained in or near the pictograph (The symbol at left means "Disassembly prohibited").



The  pictograph means "Must be done." What is specifically to be done is contained in the pictograph (The symbol at left means "Unplug the power cord from the outlet").

 <b>Warning</b>		
<p><b>Do not set on an unstable area</b></p>  <ul style="list-style-type: none"> <li>Do not set on an unstable area, such as a wobbly table or slanted area or an area subject to strong vibration. If the printer falls off or topples over, it could injure someone.</li> </ul> <p><b>Do not place containers full of water or other liquid on the printer.</b></p>  <ul style="list-style-type: none"> <li>Do not place flower vases, cups, or other containers holding liquids, such as water or chemicals, or small metal objects near the printer. If they are spilled and get inside the printer, immediately turn off the power switch, unplug the power cord from the outlet, and contact a store, dealer, or the Support Center. Using the printer in this condition could cause a fire or electric shock.</li> </ul> <p><b>Do not put objects inside the printer</b></p>  <ul style="list-style-type: none"> <li>Do not insert or drop in metal or burnable objects inside the printer's openings (cable outlets, etc.). If foreign objects do get inside the printer, immediately turn off the power switch, unplug the power cord from the outlet, and contact a store, dealer, or the Support Center. Using the printer in this condition could cause a fire or electric shock.</li> </ul> <p><b>Do not use other than the specified voltage</b></p>  <ul style="list-style-type: none"> <li>Do not use other than the specified voltage. Doing so could result in fire or electric shock.</li> </ul>	<p><b>Always ground the connections</b></p>  <ul style="list-style-type: none"> <li>Always connect the printer's ground wire to a ground. Not grounding the ground wire could result in electric shock.</li> </ul> <p><b>Handling of the power cord</b></p>  <ul style="list-style-type: none"> <li>Do not damage, break, or modify the power cord. Also, do not place heavy objects on the power cord, heat it, or pull it because doing so could damage the power cord and cause a fire or electric shock.</li> </ul>  <ul style="list-style-type: none"> <li>If the power cord becomes damaged (core is exposed, wires broken, etc.), contact a store, dealer, or the Support Center. Using the power cord in this condition could cause a fire or electric shock.</li> </ul> <ul style="list-style-type: none"> <li>Do not modify, excessively bend, twist, or pull the power cord. Using the power cord in such a condition could cause a fire or electric shock.</li> </ul> <p><b>When the printer has been dropped or broken</b></p>  <ul style="list-style-type: none"> <li>If the printer is dropped or broken, immediately turn off the power switch, unplug the power cord from the outlet, and contact a store, dealer, or the Support Center. Using the printer in this condition could cause a fire or electric shock.</li> </ul> 	<p><b>Do not use the printer when something is abnormal about it</b></p>  <ul style="list-style-type: none"> <li>Continuing to use the printer in the event something is abnormal about it, such as smoke or unusual smells coming from it, could result in fire or electric shock.</li> </ul>  <ul style="list-style-type: none"> <li>Immediately turn off the power switch, unplug the power cord from the outlet, and contact a store, dealer, or the Support Center for repairs. It is dangerous for the customer to try to repair it, so absolutely do not attempt repairs on your own.</li> </ul> <p><b>Do not disassemble the printer</b></p>  <ul style="list-style-type: none"> <li>Do not disassemble or modify the printer. Doing so could result in fire or electric shock.</li> </ul>  <ul style="list-style-type: none"> <li>Ask the store, dealer, or the Support Center to conduct internal inspections, adjustments, and repairs.</li> </ul> <p><b>Regarding the cutter</b></p>  <ul style="list-style-type: none"> <li>Do not touch the cutter with your hands or do not put something into the cutter. Doing so could result in an injury.</li> </ul> <p><b>Using the head cleaning fluid</b></p>  <ul style="list-style-type: none"> <li>Use of flame or heat around the head cleaning fluid is prohibited. Absolutely do not heat it or subject it to flames.</li> </ul>  <ul style="list-style-type: none"> <li>Keep the fluid out of reach of children to prevent them from accidentally drinking it. If the fluid is drunk, immediately consult with a physician.</li> </ul>

# Safety Precautions

## ⚠ Caution

### Do not place in areas with high humidity



- Do not place the printer in areas with high humidity or where condensation forms. If condensation forms, immediately turn off the power switch and do not use the printer until it dries. Using the printer while condensation is on it could result in electric shock.

### Carrying the Printer



- When moving the printer, always unplug the power cord from the outlet and check to make sure all external wires are disconnected before moving it. Moving the printer with the wires still connected could damage the cords or connecting wires and result in a fire or electrical shock.



- Do not carry the printer with paper loaded in it. The paper could fall out and cause an injury.
- When setting the printer on the floor or a stand, make sure not to pinch your fingers or hands under the printer feet.

### Power supply



- Do not operate the power switch or plug in/unplug the power cord with wet hands. Doing so could result in electric shock.

### Power cord



- Keep the power cord away from hot devices. Getting the power cord close to hot devices could cause the cord's covering to melt and cause a fire or electrical shock.
- When unplugging the power cord from the outlet, be sure to hold it by the plug. Pulling it by the cord could expose or break the core wires and cause a fire or electric shock.
- The power cord set that comes with the printer is especially made for this printer. Do not use it with any other electrical devices.

### Cover



- Be careful not to pinch your fingers when opening or closing the cover. Also be careful the cover does not slip off and drop.

### Thermal head



- The thermal head is hot after printing. Be careful not to get burned when replacing paper or cleaning immediately after printing.
- Touching the edge of the thermal head with bare hands could result in injury. Be careful not to become injured when replacing paper or cleaning.
- The customer should not replace the thermal head. Doing so could result in injury, burns, or electric shock.

### Opening and closing the thermal head



- When opening or closing the thermal head, make sure nothing other than paper gets in it. Debris getting in could cause injury or damage.

### Loading paper



- When loading roll paper, be careful not to get your fingers pinched between the paper roll and the supply unit.
- Be careful not to become injured when opening the fan-folded paper loading slot window.

### When not using the printer for a long time



- When not using the printer for a long time, unplug the power cord from the outlet to maintain safety.

### During maintenance and cleaning



- When maintaining and cleaning the printer, unplug the power cord from the outlet to maintain safety.

## Caution

- Reproduction in any manner of all or part of this document is prohibited.
- The contents of this document may be changed without prior notice.
- Great care has been taken in the preparation of this document, but if any problems, mistakes, or omission are found, please contact the store or dealer where you purchased the printer.

# Accessories Check

The following items are packed together with the main unit in the box. Be sure to check to make sure nothing is missing. If something is missing, contact the store or dealer where you purchased the product.



- Quick Guide
- Safety manual
- Manual (for RoHS)
- GWP leaflet



- Power cord and AC adapter



- Test labels and ribbons



- USB cable



- Dial adjustment screwdriver  
\* Attached to the printer unit.



- Ribbon adapter  
\* The test ribbons and ribbon adapter come with the thermal transfer model.



The power cord set included with this printer is only for use with this printer.  
Do not use it with other electrical products.

# Names of Parts

English

## Printer unit [unit exterior]

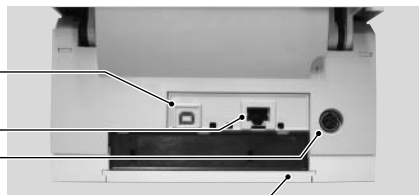
- Window
- Top cover
- Label discharge outlet
- Front cover
- Opening lever
- Operation panel



## [Back (USB + LAN interface)]

- USB interface
- LAN interface
- DC input power terminal (Power connector)

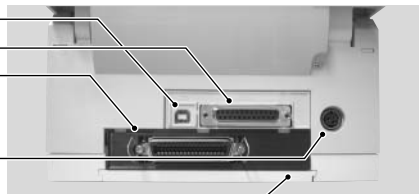
● I/F Cover



## [Back (USB + RS-232C interface)]

- USB interface
- RS-232C interface
- Interface board  
The interface can be changed using an optional interface board.
- DC input power terminal (Power connector)

● I/F Cover

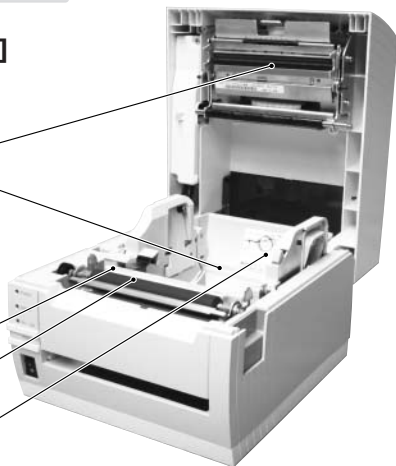


\*Handling of an I/F Cover:  
Please close with an I/F Cover after shutting off a power supply and attaching or removing an I/F board, in case an I/F Cover is opened.

## When top cover is opened

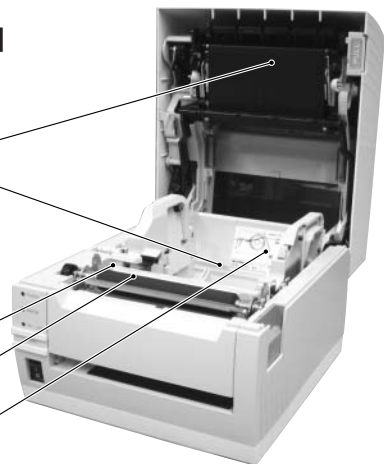
### [For CT400iDT Series]

- Thermal head
- Paper holder
- Paper sensor
- Platen roller
- Paper holder slide lever



### [For CT400iTT Series]

- Ribbon unit
- Paper holder
- Paper sensor
- Platen roller
- Paper holder slide lever



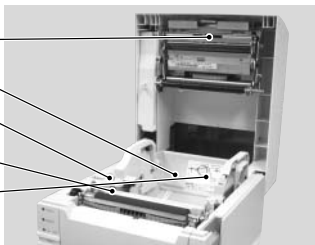
# Names of Parts

## When top cover is opened

English

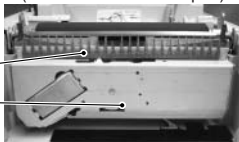
### [Cutter Type]

- Cutter top knife
- Paper holder
- Paper sensor
- Platen roller
- Paper holder slide lever



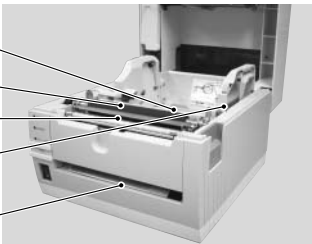
(When front cover is open)

- Cutter bottom knife
- Cutter unit



### [Separation Type]

- Paper holder
- Paper sensor
- Platen roller
- Paper holder slide lever
- Backing paper discharge outlet



(When front cover is open)

- Separation unit

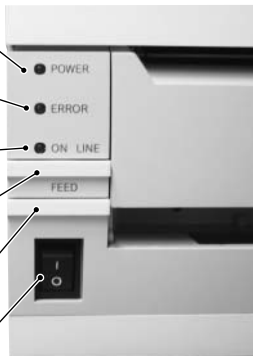




# Names of Parts

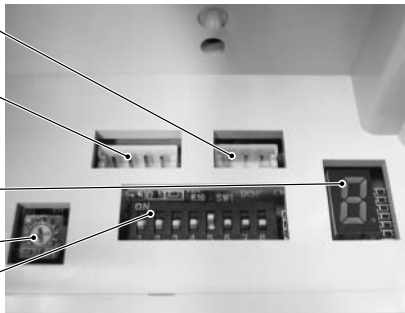
## [Operation Panel]

- [POWER] lamp  
Illuminates (green) when the power switch is on.
- [ERROR] lamp  
Illuminates or flashes (red) when an error occurs.
- [ON LINE] lamp  
Illuminates (green) when reception is possible.
- [ON LINE] key  
This is press to stop/restart and to terminate data reception.
- [FEED] key  
This feeds the paper when pressed while the printer is online.
- Power switch



## [When the front cover is opened]

- Separator connector
- Cutter connector
- Error display lamp
- Adjustment dial
- Dip switches (DSW1)

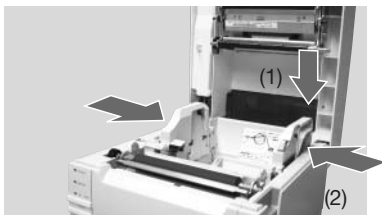


## Loading the Roll Paper [Continuous, Cutter, Linerless types]

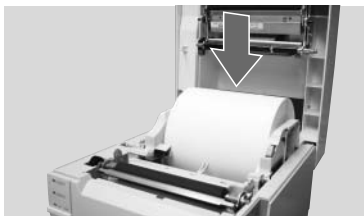
- 1** Press down the opening lever (1) on the right side of the printer to release the lock and open the top cover (2).



- 2** While pressing the paper holder slide lever (1), adjust the paper holder to match the paper size (2).



- 3** Load the paper into the paper holder.



- 4** After pulling out the paper, pass the paper through the paper sensor.

Paper sensor



## Loading the Roll Paper [Continuous, Cutter, Linerless types]

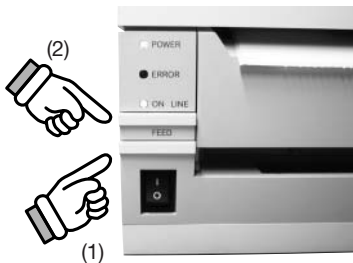
### 5 Close the top cover.

At this time, press on the top where shown by the arrows to close the cover until you hear the lock engage.



### 6 (1) Press the [FEED] key to feed the leading edge of the paper.

(2) Finally, press the [ON LINE] key to bring the printer online.



Caution

After printing, the thermal head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.

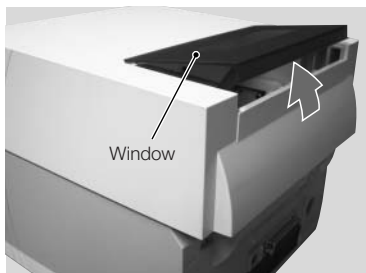
Touching the thermal head with bare hands could result in an injury.

Be careful not to become injured when replacing paper.

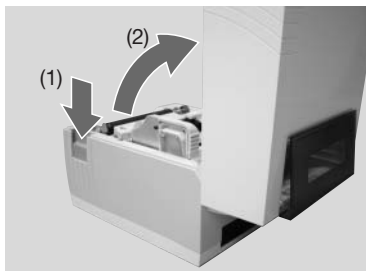
Be careful not to pinch your fingers when closing the top cover.

## Loading fan-folded paper [Continuous, Cutter types]

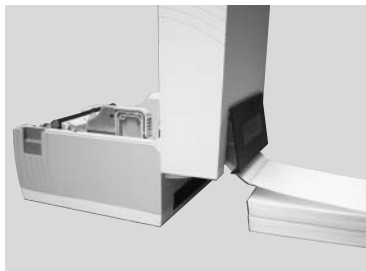
- 1 Open the window from the back edge.



- 2 Press down on the open lever (1) on the right side of the printer to release the lock and then open the top cover (2).



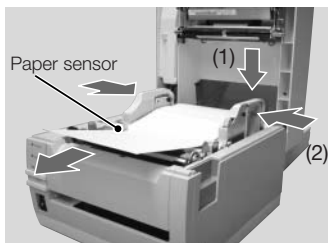
- 3 Pass the paper through the opened window.



## Loading fan-folded paper [Continuous, Cutter types]

- 4** While pressing the paper holder slide lever (1), adjust the paper holder to match the paper size (2).

After pulling out the paper, pass it through the paper sensor.



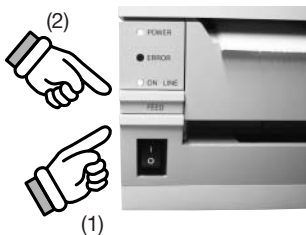
- 5** Close the top cover.

At this time, press on the top where shown by the arrows to close the cover until you hear the lock engage.



- 6** (1) Press the [FEED] key to feed the leading edge of the paper.

(2) Finally, press the [ON LINE] key to bring the printer online.



Caution

After printing, the thermal head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.

Touching the thermal head with bare hands could result in an injury.

Be careful not to become injured when replacing paper.

Be careful not to pinch your fingers when closing the top cover.

# Loading Roll Paper [Separator]

- 1 Press down on the open lever (1) on the right side of the printer to release the lock and then open the top cover (2).

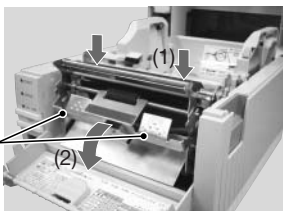


- 2 Open the front cover forward.

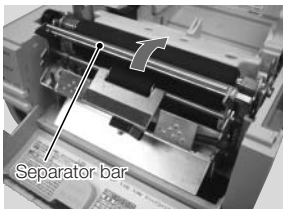


- 3 While pushing on the [PUSH DOWN] mark on the separator unit, tilt it forward (1) to open the separator unit (2).

[PUSH DOWN] mark

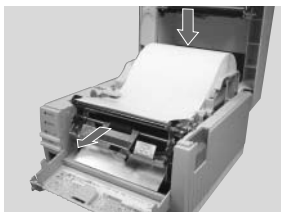


- 4 When the separator unit is opened, the separator bar will automatically open in the direction shown by the arrow.



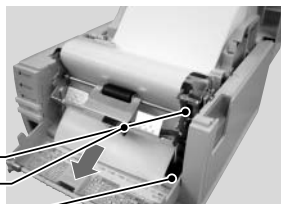
## Loading Roll Paper [Separator]

- 5** Peel off labels to expose 15 cm of only the backing paper and then load the paper into the paper holder. After pulling out the paper, pass it through the paper sensor.



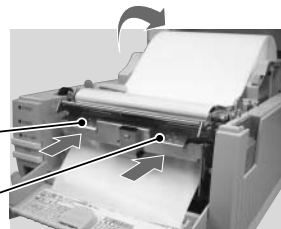
- 6** Pass the backing paper between the separator unit and the platen roller. Set the backing paper so that it is below the separator plate.

Platen roller  
Separator unit  
Separator plate

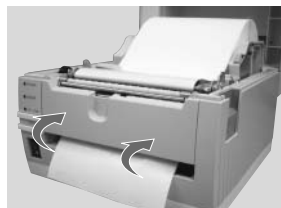


- 7** Press on the [PUSH DOWN] mark on the separator unit in the direction shown by the arrows to close it. If the backing paper is slack, turn the labels to wind it up and remove the slack.

[PUSH DOWN] mark



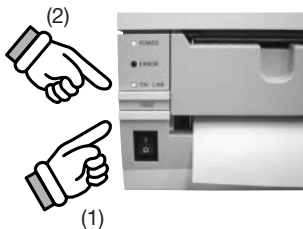
- 8** Close the front cover.



- 9** Close the top cover.  
At this time, press on the top where shown by the arrows to close the cover until you hear it lock closed.



- 10** (1) Press the [FEED] key to feed the leading edge of the paper.  
(2) Finally, press the [ON LINE] key to bring the printer online.



Caution

After printing, the thermal head and surrounding area are hot. Be careful not to get burned when replacing paper immediately after printing.

Touching the thermal head with bare hands could result in an injury.

Be careful not to become injured when replacing paper.

Be careful not to pinch your fingers when closing the top cover.



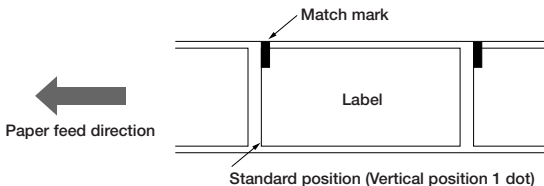
# Printing Position Adjustment

## ▲ Printing Standard Position

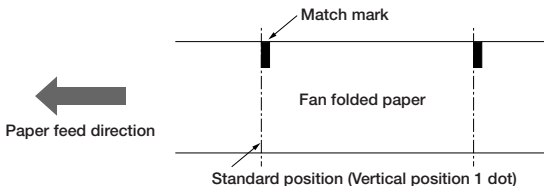
The printing standard position when using labels is the top of the label.

The printing standard position when using fan folded paper is the top of the match mark on the back of the fan folded paper.

Label



Fan folded paper



If the printing standard position is not at the correct position, open the top cover and use the flat head end of the dial adjustment screwdriver that comes with the printer to adjust the printing standard position.

**Turn left:** Moves the printing position forward relative to the printing direction.

**Turn right:** Moves the printing position backward relative to the printing direction.

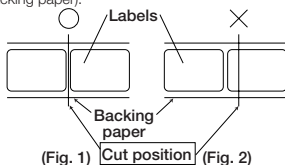
(Use the dial adjustment screwdriver.)



# Cut Position Adjustment

## ▲Label Cut

The cut position when using labels is the designated cut position between labels on the blank area (the area where there is only backing paper).



If the cut position is not the prescribed position, open the top cover and use the Phillips head end of the dial screwdriver attached to the printer unit to adjust the cut position.

Absolutely do not cut on top of the labels because the adhesive will stick to the cutter knife and cause poor cutting.

**Turn left:** Stops the label behind the printing direction.  
**Turn right:** Stops the label in front of the printing direction.

(Use the dial adjustment screwdriver.)



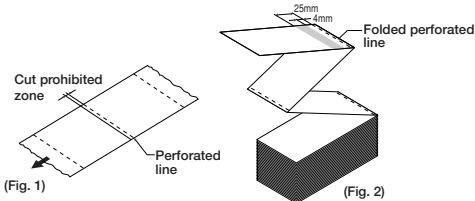
## ▲Cutting paper with perforated lines

For paper with perforated lines, cutting on or in front of the perforated lines is prohibited. Cutting in those locations could cause the printer to malfunction.

If cutting on or in front of the perforated line, use the Phillips head end of the dial screwdriver attached to the printer unit to adjust the [OFFSET] so that the cut is behind the perforated line.

The following items are specifications for paper that can be used by this printer, so check them before using the printer.

- (1) Paper thickness (including the backing paper) is 0.08 mm to 0.19 mm. For details contact the store, dealer, or Support Center.
- (2) Cut accuracy is  $\pm 1.5$  mm.
- (3) The cutter unit has a valid cut pitch of 20 to 400 mm. However, the cut size may be restricted depending on the usage conditions.
- (4) The perforated line +1 mm is the cut prohibited zone (Fig. 1).
- (5) The folded perforated line +4 mm to +25 mm of fan folded paper is the cut prohibited zone (Fig.2).
- (6) After adjusting the volume, issue about 2 to 5 labels to stabilize the cut position.



# Loading the Carbon Ribbon

## [Loading the Carbon Ribbon]

- 1 Press down on the open lever (1) on the right side of the printer to release the lock and open the top cover (2).



- 2 Pull the ribbon unit's [PULL] mark to pull the ribbon unit forward.



If the carbon ribbon width is over 92 mm and under 76 mm, use Steps 3 to 6 to set the carbon ribbon.

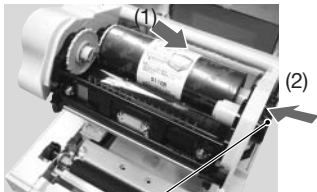
For a carbon ribbon with a width greater than 92 mm, load the carbon ribbon directly into the ribbon unit.  
For a carbon ribbon with a width under 76 mm, use a ribbon adapter to load it into the ribbon unit.



Ribbon adapter

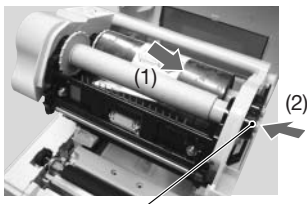
**[Loading carbon ribbons with a width greater than 92 mm]**

- 3** After setting the carbon ribbon in the right side of the ribbon supply unit (1), press the core guide (2).



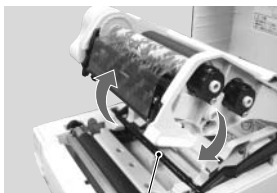
Ribbon supply unit core guide

- 4** After setting the ribbon core in the right side of the ribbon windup unit (1), press the core guide (2).



Ribbon windup unit core guide

- 5** Pass the carbon ribbon from the ribbon supply unit beneath the thermal head and to the ribbon windup unit. Affix the carbon ribbon to the ribbon core using tape, etc., and wind it up several times in the direction shown by the turn arrow.



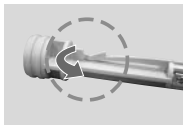
Label restraint

Be sure to pass the carbon ribbon between the thermal head and the label restraint. Do not pass it beneath the label restraint.

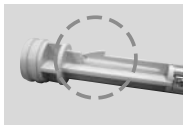
# Loading the Carbon Ribbon

## [Loading carbon ribbon with a width under 76 mm]

- 3** For carbon ribbon with a width of 76 mm or 59 mm, set the ribbon adapter hooks at the bottom. From this state, turn the hooks in the direction shown by the arrow to set it at the bottom. If the carbon ribbon width is 45 mm, use it in that state.



For 76 mm or 59 mm



For 45 mm

- 4** Set the carbon ribbon in the ribbon adapter.

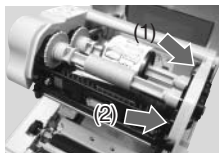


For 76 mm or 59 mm

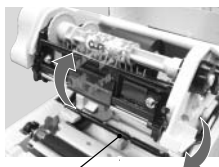


For 45 mm

- 5** Set the ribbon adapter in which the carbon ribbon (1) is loaded from the right side of the ribbon supply unit. Set the ribbon adapter in which the ribbon core is set from the right side of the ribbon windup unit (2).



- 6** Pass the carbon ribbon from the ribbon supply unit under the thermal head and to the ribbon windup unit. Affix the carbon ribbon to the ribbon core with tape, etc., and turn the core several times in the direction shown by the arrow.



Label restraint

- 7** Set the ribbon unit in the top cover and return the cover to its original position.



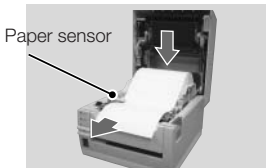
Caution

Closing the top cover after closing the ribbon unit could prevent the top cover from closing properly. Always put the ribbon unit in the top cover.



Caution

For the cutter type, be careful not to cut your hand on the top cutter knife when putting the ribbon unit into the top cover.



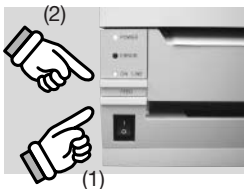
- 8** Set the paper in the paper holder.

After pulling out the paper, pass the paper between the paper sensors.



- 9** Close the top cover.

At this time, press on the top where shown by the arrows to close the cover until you hear it lock closed.



- 10** (1) Press the [FEED] key to feed the leading edge of the paper.

(2) Finally, press the [ON LINE] key to bring the printer online.



Caution

The thermal head and surrounding area is hot after printing. When replacing the carbon ribbon immediately after printing, be careful not to get burned.

Touching the thermal head with bare hands could result in an injury.

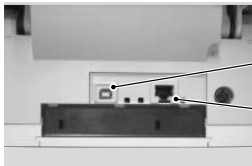
Be careful not to get injured when replacing the carbon ribbon.

Be careful not to pinch your fingers when closing the top cover.

For cutter type printers, be careful not to cut your hands.

## [Standard Interface]

### ● USB + LAN type



USB interface

LAN interface

(1) When using a USB interface, set DSW 1-8 inside the front cover to OFF.

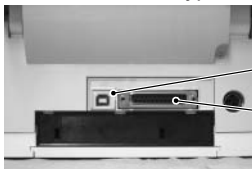
When using a LAN interface, set DSW 1-8 inside the front cover to ON.

(2) To set the USB interface printing support settings or LAN interface reception mode settings, set DSW 3-2 of the circuit board on the bottom of the printer.

For details regarding dip switch settings, refer to [Dip Switch Settings].

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### ● USB + RS-232C type



USB interface

RS-232C interface type

(1) When using a USB interface, set DSW 1-8 inside the front cover to OFF.

When using an RS-232C interface type, set DSW 1-8 inside the front cover to ON.

(2) To set the RS-232C interface conditions, set DSW2 of the circuit board on the bottom of the printer.

(3) To set the USB interface printing support settings, set DSW 3-2 of the circuit board on the bottom of the printer.

For details regarding dip switch settings, refer to [Dip Switch Settings].

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**[Extension Interface(Optional)]**

## ● IEEE 1284 interface



IEEE 1284 interface

(1)When using an IEEE 1284 interface, set DSW 3-1 of the circuit board on the bottom of the printer to ON.

(2)To set the printing support for the IEEE 1284 interface setting, set DSW3-2 of the circuit board on the bottom of the printer.

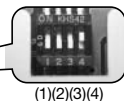
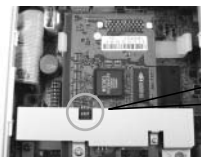
For details regarding dip switch settings, refer to [Dip Switch Settings].

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## ● Wireless LAN2 interface



Wireless LAN2 interface

ON  
↑

(1)(2)(3)(4)

Wireless LAN2 interface board Dip Switch Table	
No	Operation when the dip switch is ON and the printer power is turned on ((1) to (3)).
(1)	Not used
(2)	Wireless LAN2 interface board setting information initialization
(3)	Wireless LAN2 interface board setting information print/Self-diagnostic print (Prints the setting information, such as IP address, and the wireless LAN2 interface board diagnostic results.)
(4)	Communication mode (For wireless LAN operation)
	OFF: Ad hoc ON: Infrastructure

When the LAN cable is connected and the power is turned on, the LAN interface starts up. When the LAN cable is not connected and the power is turned on, the wireless LAN interface starts up.



- (1) When using the wireless LAN2 interface, set DSW 3-1 of the circuit board on the bottom of the printer to ON.
- (2) When setting the wireless LAN2 interface setting to the reception mode, set DSW 3-2 of the circuit board on the bottom of the printer.

For details regarding dip switch settings, refer to [Dip Switch Settings].

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## ● Bluetooth interface



Bluetooth interface

The Bluetooth interface board is contained inside the printer and cannot be seen from outside.

- (1) When using the Bluetooth interface, set DSW 3-1 of the circuit board on the bottom of the printer to ON.

For details regarding dip switch settings, refer to [Dip Switch Settings].

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# Turning On the Power

Plug the AC adapter/power cord into the printer and turn on the power.

## [Power Setting]

**1** When installation is completed, set the power as shown below.

**2** Connect the power cord to the AC adapter.  
The plug of the included power cord is a 3-pronged plug.  
3-prong type outlets use one of the prongs as a ground.  
When the outlet is a 3-prong type, plug the power cord directly into it.

**3** Connect the printer → AC adapter → power cord.  
When plugging the power cord into the printer's power connector, make sure the power cord connector is oriented properly. When plugging in the power cord to the printer, use one hand to hold the printer while using the other hand to plug in the cord.

**4** Plug the included AC adapter into the print and the power cord into the outlet.  
When the power outlet is the 2-prong type, use the included 2-pronged adapter to plug the power cord into the power outlet.



Caution

Be sure to connect the ground wire to a ground. Not connecting the ground wire could result in electrical shock.



Caution

The power cord set included with this printer is only for use with this printer. Do not use it with other electrical products.

# Turning On the Power

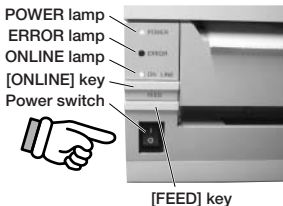
## [Turning On the Power]

Turn on the power switch at the front of the printer.

Switch it to the “|” symbol.

When the power switch is turned on, the POWER lamp will illuminate. (The ONLINE lamp also illuminates.)

Check to make sure this happens.



### Caution

Do not operate the power switch or plug in/unplug the power cord with wet hands. Doing so could result in electric shock.

## [If you think something is wrong...]

When preparation does not go well as it has before, the ONLINE LINE lamp or the POWER lamp will not illuminate. When preparation is not performed properly, the ERROR lamp will illuminate or flash. If the ERROR lamp illuminates or flashes, redo the preparation.

## [Turning Off the Power]

After making sure the printer is operating properly, turn off the power.

Do not suddenly turn off the power before making sure the printer is ready to have the power turned off.

### ▲ Check the following before turning off the power.

Press the [ONLINE] key and confirm the ONLINE lamp has turned off.

After the ONLINE lamp turns off, turn off the power.

Switch the switch to the “○” symbol.

## [Printer Status Print]

English

This prints the status of the printer.

The current settings information is printed, so check the settings printout.

**1** Turn on the power while pressing the [FEED] key.

**2** The buzzer will sound, so then press the following key.

Press the [ON LINE] key

■ to print a large size.

Press the [FEED] key

■ to print a small size.

Pressing the [FEED] key during printing will stop/restart printing.

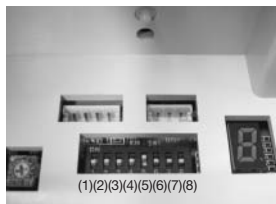
[ON LINE] key

[FEED] key



**3** The printer setting information is printed out.

Check if the printed information is the settings values.



# Printing Operation Confirmation and Error Number Display

## [Dip Switch Settings]

Suitable settings have been made to match the printer's operating environment, but in the event the settings are different, please reset the dip switches.

\* A detailed explanation of the dip switches is given on the explanation sticker affixed to the printer.

### ● Dip Switch Settings Table DSW1 (Inside the front cover)

#### USB + LAN type

Mode Change	DSW1-1	DSW1-2	DSW1-3	Printing Method	DSW1-4	Dump Mode	DSW1-7
Continuous	OFF	OFF	OFF	Direct thermal	OFF	Disable	OFF
Tear off	ON	OFF	OFF	Thermal transfer	ON	Enable	ON
Cutter	OFF	ON	OFF	Head check	DSW1-5	Interface Change	DSW1-8
Separator	ON	ON	OFF	Disable	OFF	USB	OFF
Liner less	OFF	OFF	ON	Enable	ON	LAN	ON
Partial cut	ON	ON	ON	VR1 adjustment selection	DSW1-6		
Font download	OFF	ON	ON	Offset adjustment	OFF		
				Print density adjustment	ON		

#### USB + RS-232C type

Mode Change	DSW1-1	DSW1-2	DSW1-3	Printing Method	DSW1-4	Dump Mode	DSW1-7
Continuous	OFF	OFF	OFF	Direct thermal	OFF	Disable	OFF
Tear off	ON	OFF	OFF	Thermal transfer	ON	Enable	ON
Cutter	OFF	ON	OFF	Head check	DSW1-5	Interface Change	DSW1-8
Separator	ON	ON	OFF	Disable	OFF	USB	OFF
Liner less	OFF	OFF	ON	Enable	ON	RS-232C	ON
Partial cut	ON	ON	ON	VR1 adjustment selection	DSW1-6		
Font download	OFF	ON	ON	Offset adjustment	OFF		
				Print density adjustment	ON		

\* The head check is a head disconnection guideline and is not a function warranted for the barcode reader. Check the barcode reader periodically.

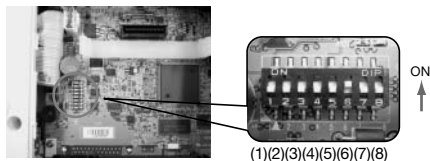
## ● Dip Switch Settings Table DSW2 (RS-232C Interface Settings)

Only for the USB + RS-232C type

To change the dip switch DSW2 settings to make the RS-232C interface settings, set them as shown below.

- (1) Turn off the printer power and disconnect the power cord.
- (2) Disconnect the connected interface cable.
- (3) Remove the paper set in the printer.
- (4) Open the cover on the bottom of the printer.

Make the ON/OFF setting for dip switch DSW2 that is on the circuit board and then switch to the RS-232C interface settings.



(1)(2)(3)(4)(5)(6)(7)(8)

No.	Function	Explanation		
(1)	Data bit length	OFF: 8 bit ON: 7 bit		
(2)	Parity bit	DSW2-2	DSW2-3	Parity bit
(3)		OFF	OFF	None
		OFF	ON	Even number
		ON	OFF	Odd number
		ON	ON	Not used
(4)	Stop bit	OFF: 1 bit ON: 2 bit		
(5)	Baud rate	DSW2-5	DSW2-6	Baud rate
(6)		OFF	OFF	9600bps
		OFF	ON	19200bps
		ON	OFF	38400bps
		ON	ON	57600bps
(7)	Communication protocol	DSW2-7	DSW2-8	Protocol
(8)		OFF	OFF	READY/BUSY
		OFF	ON	XON/XOFF
		ON	OFF	Status 3 return
		ON	ON	Status 4 return

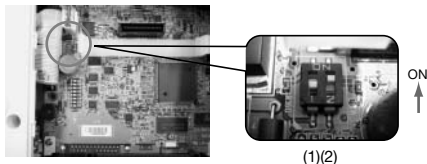
# Printing Operation Confirmation and Error Number Display

## ● Dip Switch Settings Table DSW3 (Standard/Extension Interface Settings)

To change the dip switch DSW3 settings to make the standard/extension interface change, set them as shown below.

- (1) Turn off the printer power and disconnect the power cord.
- (2) Disconnect the connected interface cable.
- (3) Remove the paper set in the printer.
- (4) Open the cover on the bottom of the printer.

Make the ON/OFF setting for dip switch DSW3 that is on the circuit board and then switch the standard/extension interface settings.



### USB + LAN type

No.	Function	Explanation	
(1)	Not used	Normally OFF	
(2)	Interface settings	USB interface (DSW1-8 OFF)	
		DSW3-2	Printing port
		OFF	SATO port
		ON	Standard printing port
		LAN interface (DSW1-8 ON)	
		DSW3-2	Reception mode
		OFF	Periodic response status
ON	ENQ response status		

### USB + RS-232C type

No.	Function	Explanation	
(1)	Standard/extension Interface change	OFF : Standard interface When DSW1-8 is OFF, USB interface When DSW1-8 is ON, RS-232C interface ON : Extension interface (option)	
(2)	Interface settings	USB interface (DSW1-8 OFF, DSW3-1 OFF)	
		DSW3-2	Printing port
		OFF	SATO port
		ON	Standard printing port
		IEEE 1284 interface (DSW3-1 ON)	
		DSW3-2	Printing port
		OFF	SATO port
		ON	Standard port
		Wireless LAN2 interface (DSW3-1 ON)	
		DSW3-2	Reception mode
		OFF	Periodic response status
ON	ENQ response status		

## ● Error Messages

Error Code	Cause	Resolution Method
0	FLASH ROM read/write overflow or write count overflow.	Contact the store, dealer, or support center.
2	Defective circuit board	Contact the store, dealer, or support center.
3	EEPROM error	Contact the store, dealer, or support center.
4	Thermal head is disconnected or broken.	Contact the store, dealer, or support center.
5	Top cover is not locked.	Press on both sides of the top of the top cover until you hear the cover lock in place.
6	The paper is dead.	Load new paper
7	Sensor type does not match, or sensor level does not match.	Contact the store, dealer, or support center.
8	The cutter is not connected, or the cutter is not operating normally.*1	Contact the store, dealer, or support center. *1 For cutter, linerless, ad partial cutter types.
9	The ribbon is dead. or ribbon is broken.*2	Correctly load the ribbon. *2 For thermal transfer printers
A	The amount of data sent from the computer is too high.	Turn the power off and on again. Adjust the computer's software data amount to match the communication conditions. If this does not resolve the error, check the communication conditions.
b	There is a problem with the computer's communication conditions settings.	
c		
d		
r	Abnormal read/write from the RFID tag.	Set a new RFID.



# Basic Specifications

CT400i Series			
Model name	CT408iDT/CT408iTT	CT412iDT/CT412iTT	CT424iDT/CT424iTT
Printing method	Thermal transfer (DT)/ Thermosensitive (TT)		
Head density	8-dot/mm (203 dpi)	12-dot/mm (305 dpi)	24-dot/mm (600 dpi)
Printing effective range	104 mm wide x 400 mm pitch		
	Printing is not possible for 1.5 mm from both edges, and printing is not possible in the I-mark range.		
Printing speed	Maximum 6 inches (Approx. 150 mm/s)	Maximum 4 inches (Approx. 100 mm/s)	Max. 3 inches (Approx. 75 mm/sec)
	Note: However, there are times when there are restrictions depending on the printing layout, paper, and type of carbon ribbon.		
Paper	Only use paper manufactured and specified by SATO.		
Paper thickness	0.08 to 0.19 mm		
Shape type	Roll paper, fan-folded paper		
Label size (Backing paper and thick paper size)	Standard	Width: 25 to 115 mm (28 to 118 mm) Pitch: 15 to 397 mm (18 to 400 mm)	
	Tear off	Width: 25 to 115 mm (28 to 118 mm) Pitch: 27 to 397 mm (30 to 400 mm)	
	Separated	Width: 25 to 115 mm (28 to 118 mm) Pitch: 20 to 120 mm (23 to 123 mm)	
	Cutter	Width: 25 to 115 mm (28 to 118 mm) Pitch: 20 to 397 mm (23 to 400 mm)	
	linerless	Width: 25 to 118 mm Pitch: 23 to 123 mm	
	Partial cut	Width: 25 to 115 mm (28 to 118 mm) Pitch: 20 to 397 mm (23 to 400 mm)	
	There may be restrictions depending on the number issued and the paper size and type. However, there may be restrictions on size depending on the usage conditions.		
Sheet capacity			
Roll paper	Max. outside diameter: 110 mm (Approx. 50 m/roll) Using 40 mm paper core Surface wound (However, linerless is for surface wound only)		
Fan-folded paper	Max. folded height: 100 mm (Supplied from outside the printer.) Refer to "Fan-folded Paper Settings." → page 12		
Carbon ribbon	Only use carbon ribbon manufactured and specified by SATO.		
Width	45, 59, 76, 92, 111 mm The carbon ribbon width should be wider than the paper being used.		
Length	100 m/roll		
Base material thickness	4.5 μm		
Color	Black (standard) However, colored ribbon is available.		
Winding direction	Surface winding		
Label feed	Continuous, tear off, separated, cutter, linerless, partial cut		
Dimensions	198 W × 247 D × 181 H mm (standard)		

Weight	3.0 kg (standard) Excluding AC adapter, battery
Power supply	AC 100 to 240V (1.5A) 50/60 Hz
AC adapter	DC 25V (2.0A)
Input voltage	Print ratio 30%      180VA      120W
Output voltage	Maximum      280VA      180W
Power consumption	During standby      30VA      15W
Environmental conditions	Operation ambient temperature: 5 to 35°C Humidity: 30 to 80% (However, no dew formation) Storage ambient temperature : -5 to 60°C Humidity: 30 to 90% (However, no dew formation) Excluding paper and carbon ribbon
External interface	
Standard interface	USB + LAN type ○USB (Full Speed) ○LAN (10BASE-T/100BASE-TX automatic switching) USB + RS-232C type ○USB (Full Speed) ○RS-232C
Extension interface	USB + RS-232C type ○Parallel (IEEE 1284) ○Wireless LAN2 (LAN: 10BASE-T/100BASE-TX automatic switching, Wireless LAN: IEEE 802.11 b/g) ○Bluetooth (Bluetooth Specification Ver. 1.1 Class 2)
Operation panel	
Keys	LINE, FEED
Switches	POWER switch, DIP switch
lamp	POWER, ONLINE, ERROR, 7SEG lamp
Adjustment dials	Paper sensor adjustment, printing position adjustment, printing density adjustment, tear off/separated/cutter stop position adjustment. However, printing density adjustment and tear off/separated/cutter stop position adjustment are switched using DSW1-6.
Sensor	Paper sensor reflection type, transparent type
Printing format	Transfer from host (computer)(with format registration function)

# Basic Specifications

Contained fonts Standard	XU 5 × 9 dots (alphanumeric, symbol)		
	XS 17 × 17 dots (alphanumeric, symbol)		
	XM 24 × 24 dots (alphanumeric, symbol)		
	XB 48 × 48 dots (alphanumeric, symbol)		
	XL 48 × 48 dots (alphanumeric, symbol)		
	Outline font (alphanumeric, symbol)		
	OCR-A 15×22 dots (alphanumeric, symbol)	OCR-A 22×33 dots (alphanumeric, symbol)	OCR-A 44×66 dots (alphanumeric, symbol)
	OCR-B 20×24 dots (alphanumeric, symbol)	OCR-B 30×36 dots (alphanumeric, symbol)	OCR-B 60×72 dots (alphanumeric, symbol)
Barcode	UPC-A/UPC-E, JAN/EAN, CODE39, CODE93, CODE128, GS1-128(UCC/EAN-128), CODABAR(NW-7), ITF, Industrial 2of5, Matrix 2of5, BOOKLAND, MSI, POSTNET, GS1 DataBar(RSS)		
2D Barcode	QR Code, Micro QR, PDF417, Micro PDF, MAXI Code, GS1 DataMatrix(ECC200)		
Composite Symbol	Composite Symbol(JAN/EAN, UPC-A/UPC-E, GS1-128, GS1 DataBar(RSS))		
Magnification	Vertical ×1 to ×12, horizontal ×1 to ×12 (characters) 1 to 12L (barcode)		
Rotation	0°, 90°, 180°, 270°		
Characters	Parallel 1, Serial 1, Parallel 2, Serial 2		
Barcode	Parallel 1, Serial 1, Parallel 2, Serial 2		
Barcode ratio	1:2, 1:3, 2:5, Free specification		
Self-diagnostic function	Head check, head/cover open, paper end, ribbon end, test print		
Noise standard	FCC, CE, CCC, MIC (If differs in each destination)		
Emitted noise	FCC, CE, CCC, MIC (If differs in each destination)		
Options	Separation unit, cutter unit, Linerless unit, RFID unit, interface board (Parallel (IEEE 1284), Wireless LAN2 (LAN: 10BASE-T/100BASE-TX automatic switching, Wireless LAN: IEEE 802.11 b/g), Bluetooth)		

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