

CITIZEN

Auto-Cutter

User's Manual

**(For CL-S52X/53X/62X/63X,
CL-S400DT,CL-E720/E730/E720DT)**

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Notice

1. Before use, be sure to read this manual and understand. And keep it handy for reference when needed.
2. Do not handle, disassemble or repair any parts other than those specified in this manual.
3. The contents of this manual may be changed without prior notice.
4. Reproduction, transfer or transmission of the contents of this manual without prior consent is strictly prohibited.
5. We are not liable for any damage resulting from the use of this manual, regardless of omissions, errors or misprints.
6. We are not liable for any problems resulting from the use of optional products or consumable supplies other than those specified in this manual.
7. Please contact us if there are any mistakes or ambiguities within this manual.
8. If there are missing or incorrectly collated pages in this manual, contact us to obtain a new manual.

SAFETY SIGNS

that must be strictly observed!

To prevent personal injury or property damage, the following must be strictly observed.

- The degree of possible injury and damage due to incorrect use or improperly following instructions specified is described below.

 WARNING	Indicates a situation which, if not observed and handled properly, could result in death or serious injury.
 CAUTION	Indicates a situation which, if not observed and handled properly, could result in personal injury or property damage.

 This is a mark to call attention to the reader.

 <b style="font-size: 1.2em;">WARNING
Do not perform the following. If ignored, these may cause damage to the auto-cutter, breakdown, overheating, smoke, fire or electric shock. If the auto-cutter is damaged or breaks down, turn off the power to the printer and remove the power cord from the outlet and then consult your supplier. ● Do not open the auto-cutter during operation. The cutting blade can be very dangerous. Also, this can cause damage. ● Prevent foreign matter from entering small openings of the auto-cutter Inserting your finger or other foreign matter in the small openings of the auto-cutter can be extremely dangerous and can damage the cutter. ● The user should never install or remove the auto cutter.



CAUTION

- **Avoid the following conditions to ensure proper operation of the auto-cutter.**

- The cutting blade can be very dangerous. Also, this can cause damage.
- Room temperature is less than 5°C or more than 40°C.
- Humidity is less than 30% or more than 80%.
- Dusty
- Direct sunlight
- Chemicals
- Vibrations or impacts

- **When cutting media (paper)**

- Do not operate auto-cutter without loading paper. This can cause damage to the cutter.
- Use the standard media (paper). Otherwise, problems such as paper jams may occur.
- Remove any dust or particles from the paper guide and path periodically.
 - When auto-cutter is cleaned, turn off the power to the printer and remove the power cord from the outlet beforehand.
 - Clean the main body of the auto-cutter with a soft cloth that is soaked in a thinned neutral detergent. Do not use volatile solvent such as benzene and thinner, which can cause discoloration.
 - When the cutter blade becomes dirty, contact your supplier or a service representative.

1. Function

The auto-cutter units are designed to cut various media such as labels, tickets and tags precisely and accurately as the setting cut length.

2. Main specifications of auto-cutter

- Cutting method: Guillotine cutter
- Maximum cut paper thickness: 0.25 mm (0.01")
- Minimum cut paper length: 25.4 mm (1")
- Cut paper width: Maximum: 118 mm (4.65")
Minimum: 25.4 mm (1")
- Durability:
 - Number of cuts: Minimum 300,000 times
(for a paper thickness of 60 to less than 150 μm)
Minimum 100,000 times
(for a paper thickness of 150 to 250 μm)

Note

- Media with adhesive substance may be excluded from the number of cuts.
- The number of cuts can vary according to the quality of the paper.

- Media and paper types:
 - Roll or label (continuous, die-cut, fanfold, tag and ticket).
 - However, the following paper cannot be used:
 - Paper with thickness of 0.06 mm (0.0024") or less
 - Roll paper with paper core diameter of 50 mm (2") or less

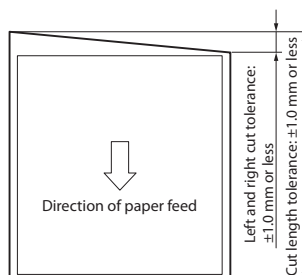
Note Using paper other than the specified types may cause problems such as paper jams, so the paper specification must be checked before use.

- Cut accuracy:
 - Cut length tolerance: ± 1.0 mm or less
 - Left and right cut tolerance: ± 1.0 mm or less

Note Cutting position can be adjusted using printer commands (see page 12).



- When using adhesive media, do not cut the liner itself. Adjust the printer to cut the liner only. If label glue sticks to the cutter blades, irregular cutting will occur.

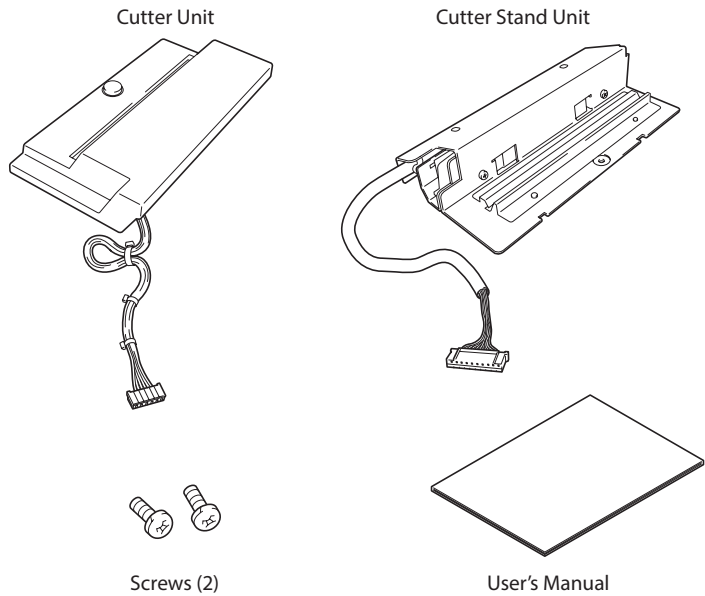


3. Checking items inside the accessory box

Note Auto-cutter is not available for the printer with the peeler.

You should check that all of the following items are inside the accessory box. If any are missing, please contact your supplier.

- Cutter Stand Unit 1 piece
- Cutter Unit 1 piece
- Screws 2 pieces
- User's Manual 1 piece



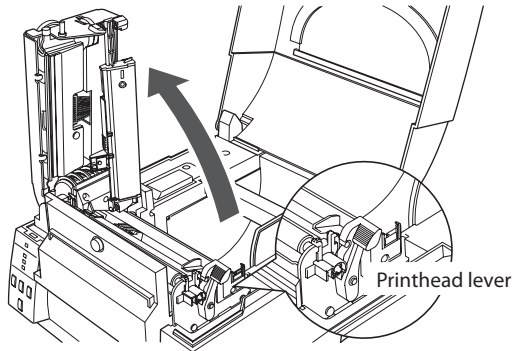
4. Auto-cutter settings

"Cut On" menu will be selected automatically when the auto-cutter is installed; thus, the printer can be used without adjustment. However, some printers may not have the "AutoConfigure" function. In this case, select the "After Print" menu of the menu setup mode, and the "Cut On" menu on the "Function Select" menu. If the printer has the "AutoConfigure" function, the "AutoConfigure" menu will be printed out in front of "Function Select" menu when you print the "Current Setup".

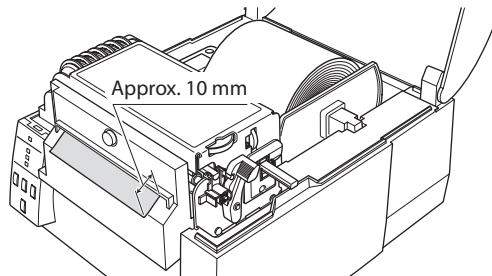
Note See the printer's User's Manual (CD-ROM) for details on "Print Menu Settings".

Loading Media (For CL-S52X/53X/62X/63X/CL-E720/E730/E720DT)

- (1) Press the printhead lever, and then open the head unit and sensor arm.



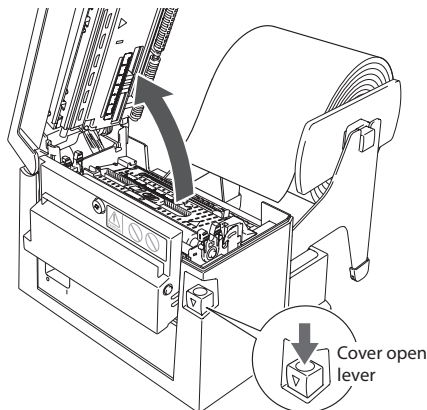
- (2) With scissors, cut the end of the media loaded in the media holder.
- (3) Feed the end of the media through the cutter assembly until the end extends 10 mm past the cutter cover.
- (4) Close the head unit and sensor arm.



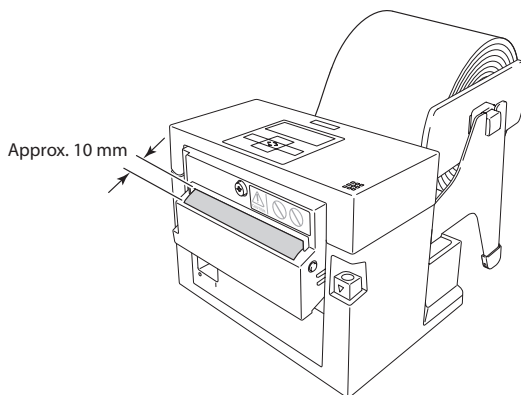
- (5) The cutter will operate one time when the FEED key is pressed.

Loading Media (For CL-S400DT)

- (1) Press the cover open lever, and then open the printer cover.



- (2) With scissors, cut the end of the media loaded in the media holder.
- (3) Feed the end of the media through the cutter assembly until the end extends 10 mm past the cutter cover.
- (4) Close the Printer cover.



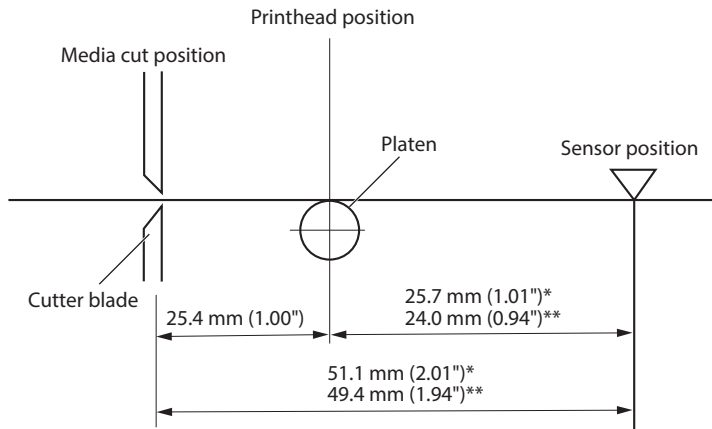
- (5) The cutter will operate once when the FEED key on the control panel is pressed.

CAUTION

- When a paper jam has occurred, or when the auto cutter has malfunctioned, your supplier or your service representative. Never attempt to repair the auto cutter yourself, it could result in a risk of injury.

5. Cut position

The following diagram gives the distance from the media sensor and the thermal printhead to the cutter blade.



Note

The measurements shown here are approximate.

* CL-S52X/53X/62X/63X/E720/E730/E720DT

** CL-S400DT

6. Cut settings

The auto-cutter-related commands are described below. See the Command Reference manual for more details.

The following commands set the cut position and number of operations.

Cut-position setup command	STX fnnn
STX 0000	STX 0000
STX 0001	STX 0001
STX 0002	STX 0002
STX 0003	STX 0003
STX 0004	STX 0004
STX 0005	STX 0005
STX 0006	STX 0006
STX 0007	STX 0007
STX 0008	STX 0008
STX 0009	STX 0009
STX 000A	STX 000A
STX 000B	STX 000B
STX 000C	STX 000C
STX 000D	STX 000D
STX 000E	STX 000E
STX 000F	STX 000F
STX 0010	STX 0010
STX 0011	STX 0011
STX 0012	STX 0012
STX 0013	STX 0013
STX 0014	STX 0014
STX 0015	STX 0015
STX 0016	STX 0016
STX 0017	STX 0017
STX 0018	STX 0018
STX 0019	STX 0019
STX 001A	STX 001A
STX 001B	STX 001B
STX 001C	STX 001C
STX 001D	STX 001D
STX 001E	STX 001E
STX 001F	STX 001F
STX 0020	STX 0020
STX 0021	STX 0021
STX 0022	STX 0022
STX 0023	STX 0023
STX 0024	STX 0024
STX 0025	STX 0025
STX 0026	STX 0026
STX 0027	STX 0027
STX 0028	STX 0028
STX 0029	STX 0029
STX 002A	STX 002A
STX 002B	STX 002B
STX 002C	STX 002C
STX 002D	STX 002D
STX 002E	STX 002E
STX 002F	STX 002F
STX 0030	STX 0030
STX 0031	STX 0031
STX 0032	STX 0032
STX 0033	STX 0033
STX 0034	STX 0034
STX 0035	STX 0035
STX 0036	STX 0036
STX 0037	STX 0037
STX 0038	STX 0038
STX 0039	STX 0039
STX 003A	STX 003A
STX 003B	STX 003B
STX 003C	STX 003C
STX 003D	STX 003D
STX 003E	STX 003E
STX 003F	STX 003F
STX 0040	STX 0040
STX 0041	STX 0041
STX 0042	STX 0042
STX 0043	STX 0043
STX 0044	STX 0044
STX 0045	STX 0045
STX 0046	STX 0046
STX 0047	STX 0047
STX 0048	STX 0048
STX 0049	STX 0049
STX 004A	STX 004A
STX 004B	STX 004B
STX 004C	STX 004C
STX 004D	STX 004D
STX 004E	STX 004E
STX 004F	STX 004F
STX 0050	STX 0050
STX 0051	STX 0051
STX 0052	STX 0052
STX 0053	STX 0053
STX 0054	STX 0054
STX 0055	STX 0055
STX 0056	STX 0056
STX 0057	STX 0057
STX 0058	STX 0058
STX 0059	STX 0059
STX 005A	STX 005A
STX 005B	STX 005B
STX 005C	STX 005C
STX 005D	STX 005D
STX 005E	STX 005E
STX 005F	STX 005F
STX 0060	STX 0060
STX 0061	STX 0061
STX 0062	STX 0062
STX 0063	STX 0063
STX 0064	STX 0064
STX 0065	STX 0065
STX 0066	STX 0066
STX 0067	STX 0067
STX 0068	STX 0068
STX 0069	STX 0069
STX 006A	STX 006A
STX 006B	STX 006B
STX 006C	STX 006C
STX 006D	STX 006D
STX 006E	STX 006E
STX 006F	STX 006F
STX 0070	STX 0070
STX 0071	STX 0071
STX 0072	STX 0072
STX 0073	STX 0073
STX 0074	STX 0074
STX 0075	STX 0075
STX 0076	STX 0076
STX 0077	STX 0077
STX 0078	STX 0078
STX 0079	STX 0079
STX 007A	STX 007A

This command specifies the distance between the sensor and the media cut position.

Media-cut command STX o

This command executes one media-cut operation.

Software-switch setup command STX Vn

- This command temporarily selects the on/off state of the auto cutter or the peeler, which are normally set in memory.

Examples:

n = 1: The auto cutter is set in the on state

n = 0: The auto cutter is set in the off state

Note See the Command Reference manual for a detailed description of the parameter `n` of the command.

Sheet-cutting interval command cnn (two-digit entry method)
:nnnn (four-digit entry method)

This command instructs the printer to cut the media after a specified number of sheets have been printed.

Example: To set the sheet-cutting interval to 10 sheets

Two-digit data method

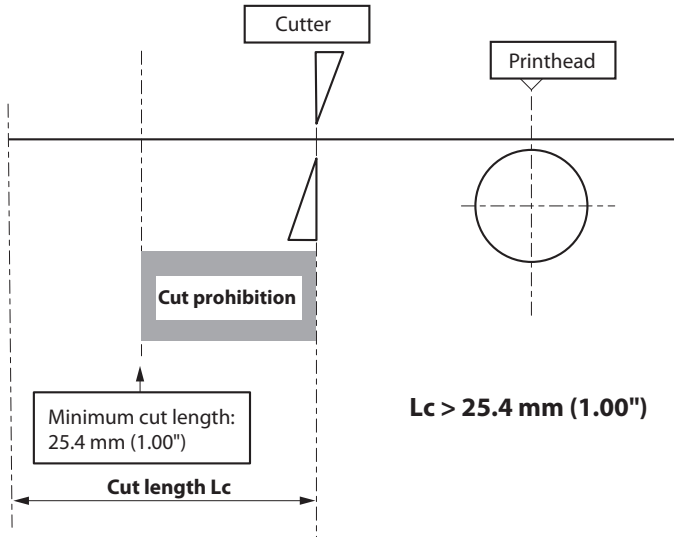
```
STX L
c10
|
| (Other label format commands)
|
E
```

Four-digit data method

```
STX L
:0010
| (Other label format commands)
E
```

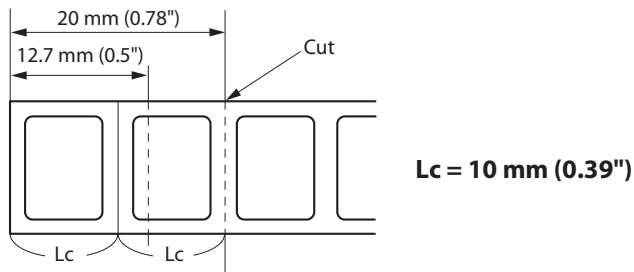
7. Auto cut-length detection

If media with a cut length shorter than the minimum cut length of 25.4 mm (1.0 in) is used, the cut media may remain in the cutter unit and cause paper jams. To prevent this, when the printer detects a cut length shorter than the minimum, it feeds the media without operating the cutter. Therefore, use a cut length of 25.4 mm (1.0 in) or longer when setting the media cut length.



Note Media is fed and not cut when its media cut length is 12.7 mm (0.5 in) or less. However, if the total length of several labels (for example, two or more) on one label sheet is more than 12.7 mm (0.5 in), the media can be cut in intervals of multiple labels (for example, every two or more labels).

Example:

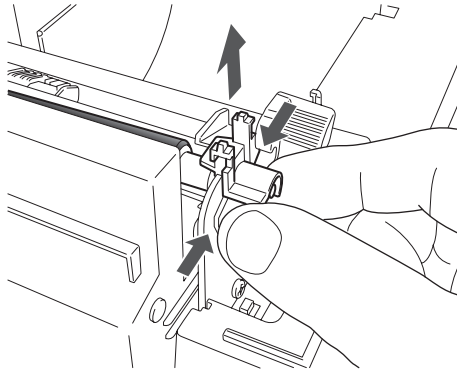


8. User maintenance

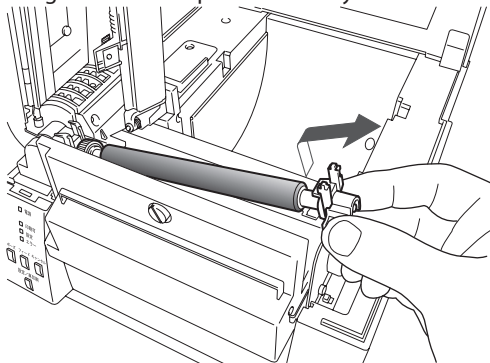
If the platen of the printer becomes dirty, the cutter may perform defective cutting even if the auto cutter does not malfunction. Therefore, clean the platen regularly. (See the printer user's manual)

Remove the platen (For CL-S52X/53X/62X/63X/CL-E720/E730/E720DT)

- (1) Push the head open lever downwards to open the head unit and sensor arm.
- (2) Grasp the mounting device of the platen and lift it up as shown in the figure.



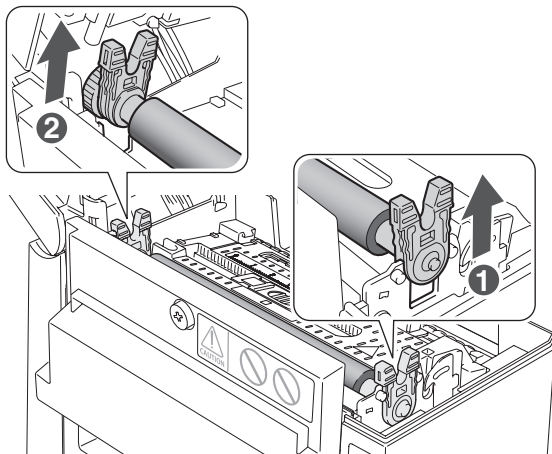
- (3) Remove the gear side of the platen, and remove the platen while pulling the mounting device of the platen toward you.



- (4) Remove dirt from the platen with a soft cloth or cotton swab containing a small quantity of ethyl alcohol. (See the printer user's manual)

Remove the platen (For CL-S400DT)

- (1) Push the cover open lever downwards to open the printer cover.
- (2) Grasp the mounting device of the platen and lift it up as shown in figure (1). Next, lift the gear side of the platen and remove as shown in figure (2).



- (3) Remove dirt from the platen with a soft cloth or cotton swab containing a small quantity of ethyl alcohol. (See the printer user's manual)

9. Troubleshooting

If an error is detected, an alarm will sound and an LED on the control panel will display the nature of the error.

List of error displays (For CL-S52X/53X/62X/63X)

Error	Print LED	Condition LED	Error LED
Media Out (media location cannot be detected)	OFF	ON OFF	ON OFF
Auto Cutter Abnormality (such as blade jamming)	OFF	OFF	ON
Abnormal auto-cutter temperature	ON OFF	OFF ON	OFF

List of error displays (For CL-S400DT/E720/E730/E720DT)

Error	LCD Display	PowerLED
Paper jam	Error Paper Jam	Flashing (red)
Auto-Cutter Abnormality	Error Cutter Fail	Flashing (red)
Cutter motor temperature abnormality	Alarm Cutter Hot	Flashing (red)



CAUTION

Contact your supplier or service representative, if the following conditions are observed.

- The cutter does not cut the media well.
The blade of the cutter may be worn out or covered by a label glue.
- Above error condition is occurred.

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