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FURUNO

OPERATOR'S MANUAL

PRINTER

MODEL PP-510

This manual describes information only for operation of the printer.
For installation, refer to Installation manual of the equipment connected to the printer.

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NISHINOMIYA, JAPAN

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•Your Local Agent/Dealer

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FIRST EDITION : DEC. 1993
H : JUN. 22,2001

PUB. No. OME-50800
PP-510
(TENI)

00080613300

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⚠ SAFETY INSTRUCTIONS

"**DANGER**", "**WARNING**" and "**CAUTION**" notices appear throughout this manual. It is the responsibility of the operator of the equipment to read, understand and follow these notices. If you have any questions regarding these safety instructions, please contact a FURUNO agent or dealer.

⚠ DANGER	This notice indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	This notice indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	This notice indicates an unsafe practice which, if not avoided, could result in minor or moderate injury, or property damage.

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⚠ WARNING



Do not open the cover of the equipment

This equipment uses high voltage electricity which can shock, burn, or cause death. Only qualified personnel should work inside the equipment.

Do not dissasemble or modily the equipment

Fire, electrical shock or serious injury can result.

Immediately turn off the power at the ship's mains switchboard if water or foreign object falls into the equipment of the equipment is emitting smoke or fire.

Continued use of the equipment can cause fire, electrical shock or serious injury.

If water leaks into the equipment, immediately shut off the power at ship's mains.

Continued use may cause fire or short circuit.

Do not place containers filled with liquids on the top of the equipment.

Fire or short circuit may result.

If the equipment becomes hot, immediately shut off the power at ship's mains.

Continued use may cause fire or electrical shock. Contact your dealer.

Keep the equipment away from heat sources.

Heat can alter equipment shape, and melt the power cord, causing fire and electrical shock.

⚠ CAUTION



Ground the equipment.

Ungrounded equipment can give off or receive electro-magnetic interference or cause electrical shock.

Confirm that the power supply voltage is compatible with the voltage rating of the equipment.

Connection to the wrong power supply can cause fire or equipment damage. The voltage rating appears on the label at the rear of the equipment.

Do not place liquid-filled containers on the top of the equipment.

Fire or electeical shock can result if a liquid spills into the equipment.

Do not place heater near the equipment.

Heat can melt the power cord, which can result in fire or electrical shock.

Do not operate the unit wih wet hands.

Electrical shock can result.

Whenever you feel the equipment is abnormal, immediately shut of the p ower at the ship's mains.

If the unit becomes hot or emits noise, contact your dealer.

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NOTICE

Do not use the equipment for other than its intended purpose.

Use of the equipment as a chair or a shelf, for example, can cause equipment damage.

Keep magnets and magnetic fields away from the equipment.

Magnetic fields will distort the picture and can cause equipment malfunction.
Be sure the display unit is well away from equipment which gives off magnetic fields (speaker, power transformer, etc.).

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Overview

About this manual

This manual provides the operation of printers used for Inmarsat MES and DSC terminal.

What can you print?

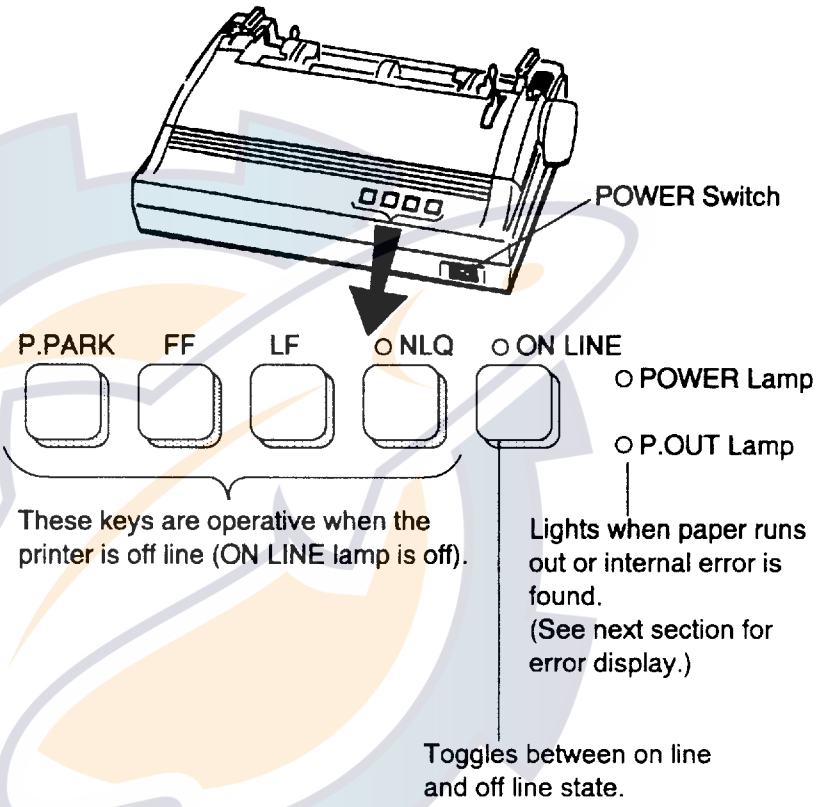
Transmitted and received messages. To print, the printer must be in "On line" state. This is done as follows:

- PP-510: ON LINE lamp is lit.

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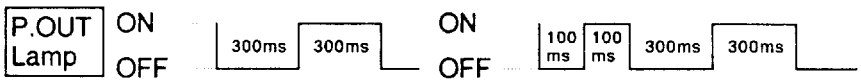
Turning on the power

Press the POWER switch. The POWER and ON LINE lamps light. You are now ready to print. If the ON LINE lamp is not on, press the ON LINE switch to turn it on.



Error display

When internal fault is found, the P. OUT lamp blinks. The lamp blinks in the following cycles according to causes of errors.



Carriage Return Error (printing head stays at right-hand side)

RAM Error

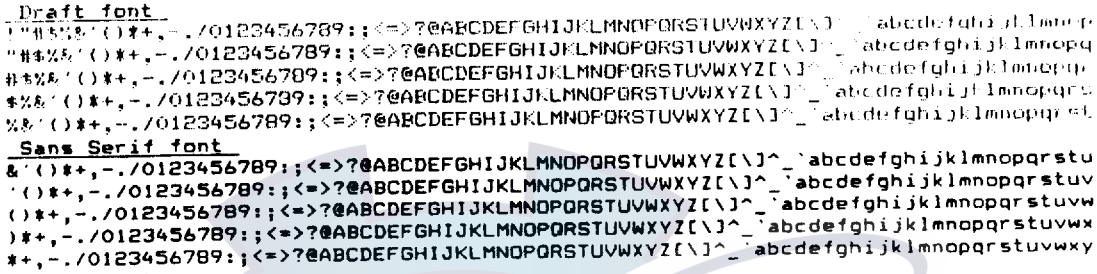
Remedy

Turn off and on the power. If the P. OUT lamp blinks, request service.

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Self-test

Before conducting the self-test be sure the ribbon cassette and roll paper are set correctly. To conduct the self-test, turn on the power while pressing and holding down the LF key. Release the LF key when the self-test starts. You can escape from the self-test by turning off the power.



Example Self-test Results Printout

Key description

The following keys function only when the ON LINE lamp is off.

NLQ (Near Letter Quality) key

This switch toggles between draft and NLQ print modes. When the lamp is lighting near letter quality (high quality) print is selected.

LF key

This switch advances the paper one line. When the switch is pressed and held down the printer continuously advances the paper.

FF key

This switch advances the paper to the top of the next available form. The default form length is 11 inches.

P. PARK key

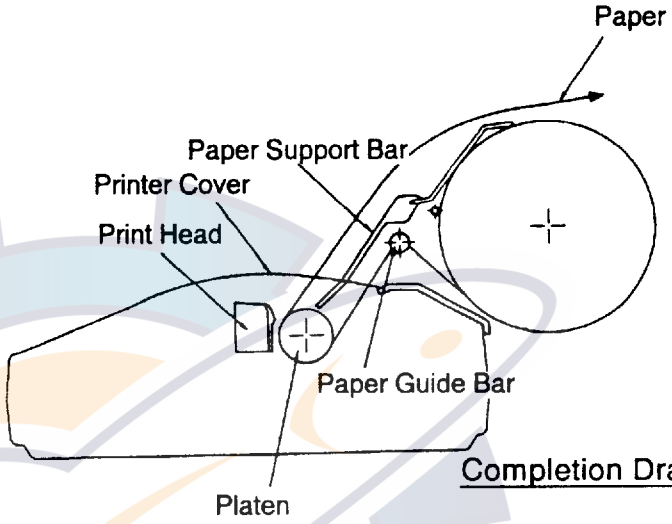
The paper backs up by maximum 18 inches. If the paper is not detected after this backing up, the P. OUT lamp blinks three times and the printer stays in off line state.

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Loading the roll paper

When loading the paper, observe the following cautions:

① To prevent paper skewing or jamming, position the paper correctly.
② Never turn the platen knob too fast, otherwise the internal gears may be damaged.

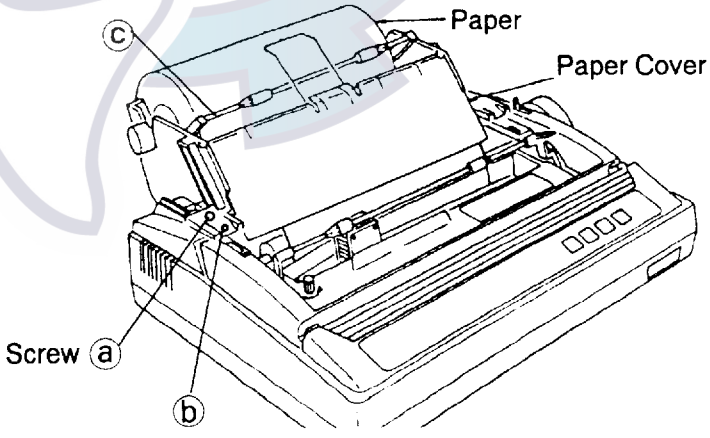


Completion Drawing

Removing remaining paper

1. Press the P. PARK switch to back up the paper. Turn off the power.

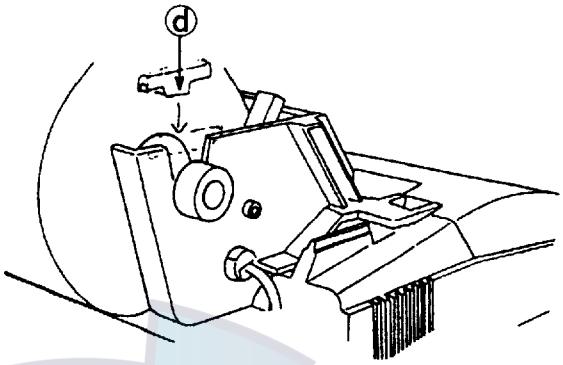
2. Loosen screws ⓐ (one right and one left) and push back ⓑ (one right and one left) to remove the printer cover.



3. Swing out the paper cover by about 100° to 120° then lift it up (from right-hand side) to remove it from the printer.

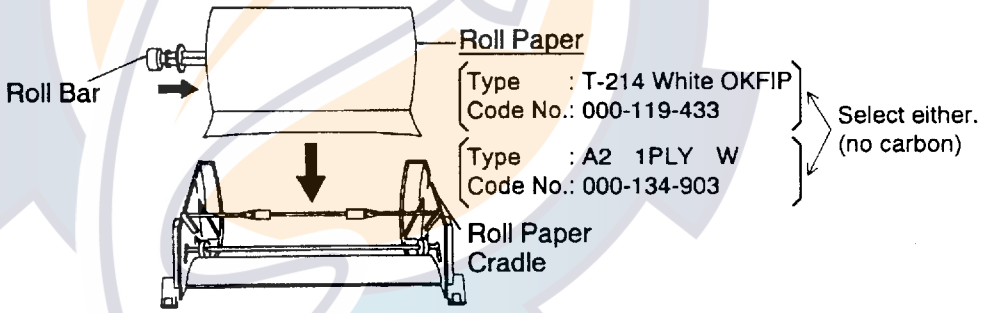
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4. Referring to the previous figure, lift the paper bail ⓒ . As shown in the following figure, lift up the roll paper stay ⓓ and then take out the roll paper.

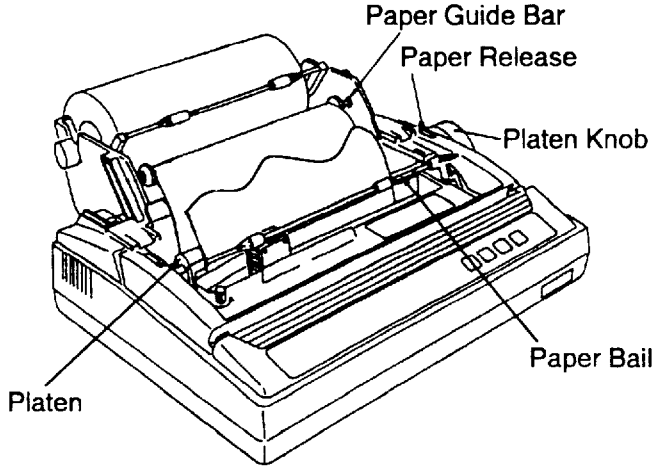


Loading new roll paper

5. Insert the roll bar into the roll paper from the left side. Set the roll paper on roll paper cradle.



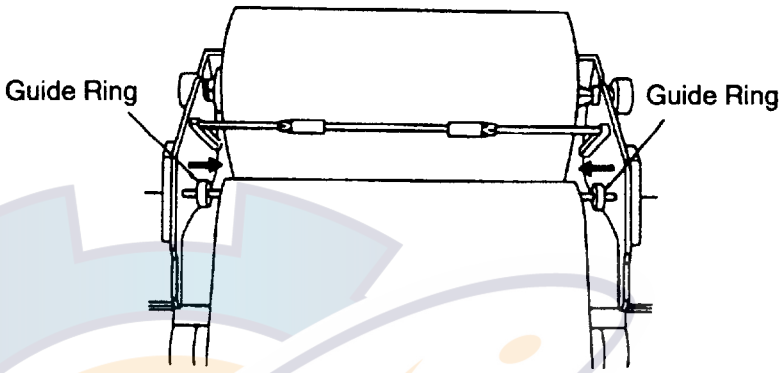
6. Pull the paper bail toward the front. Manually feed the paper over the paper guide bar and into the printer (under platen). Turn the platen knob clockwise to feed the paper so it reaches the paper guide bar.



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7. Unlock the paper release to adjust the paper and then lock the paper release.

8. Slide the left and right guide rings to gently hold the paper.



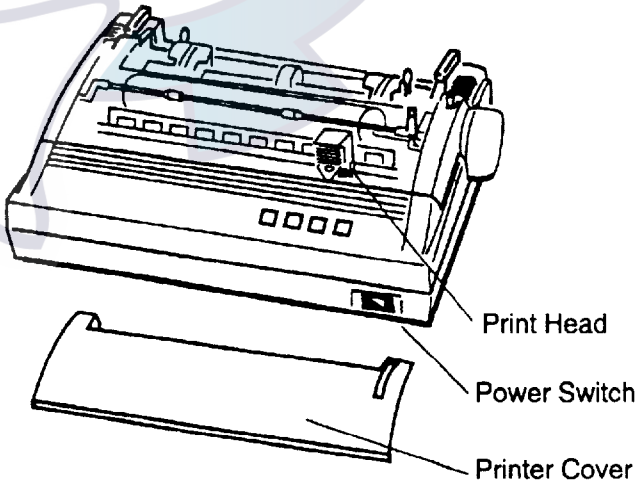
9. Replace the paper cover, the printer cover and the roll paper stay.

Setting the ribbon cassette

Procedure

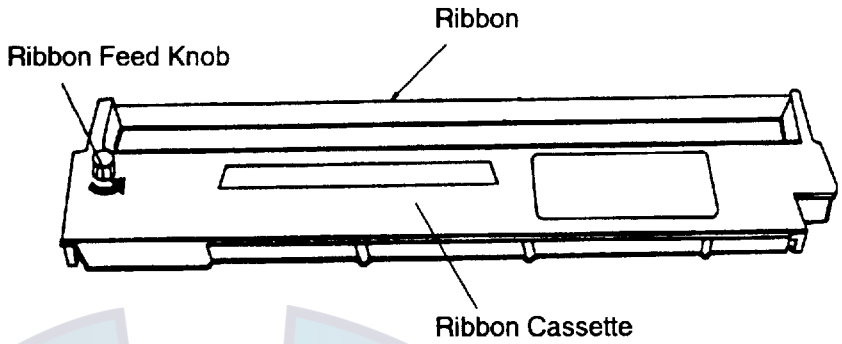
1. Turn off the power. Remove the printer cover. (See page 2-3 for procedure.)

2. Set the print head in the center of the printing mechanism.

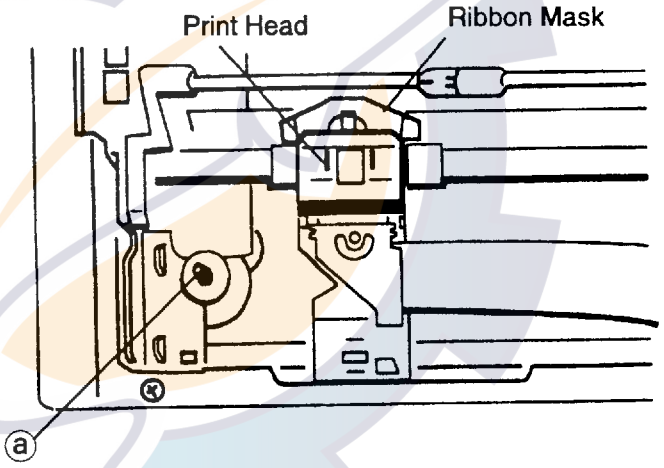


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3. Turn the ribbon feed knob in the direction of the arrow to remove slack in the ribbon.



4. Insert the ribbon between the ribbon mask and the print head, and position the cassette so that the hole under the ribbon feed knob is inserted into the shaft ⓐ .



5. Manually move the print head back and forth along the carriage bar to make sure that the ribbon feed knob rotates in the direction of the arrow.

6. Replace the printer cover.

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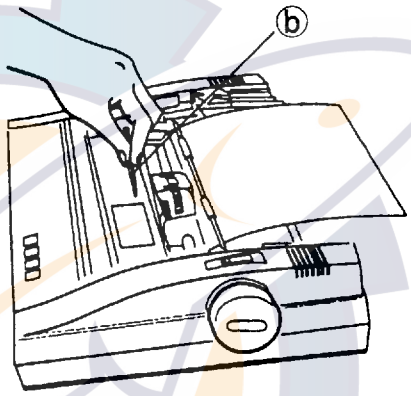
Removing the ribbon cassette

Procedure

1. Turn off the power. Remove the printer cover. (See page 2-3 for the procedure.)

2. Manually move the print head (see Note shown below) to the center of the printing mechanism. Referring to the following figure, lift ⓑ to remove the ribbon cassette.

NOTE: *The print head is hot after printing. Allow it cool down before touching it.*



When to change the ribbon

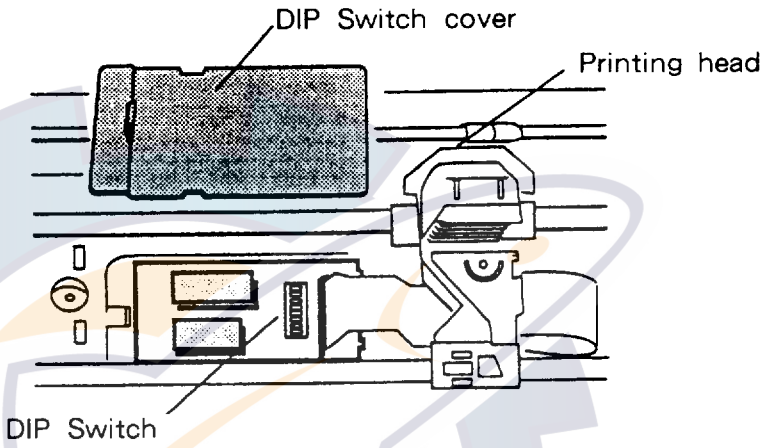
- Do not let the ribbon become frayed. The pins in the print head can catch in a frayed ribbon and cause damage to the print head.
- Change the ribbon when

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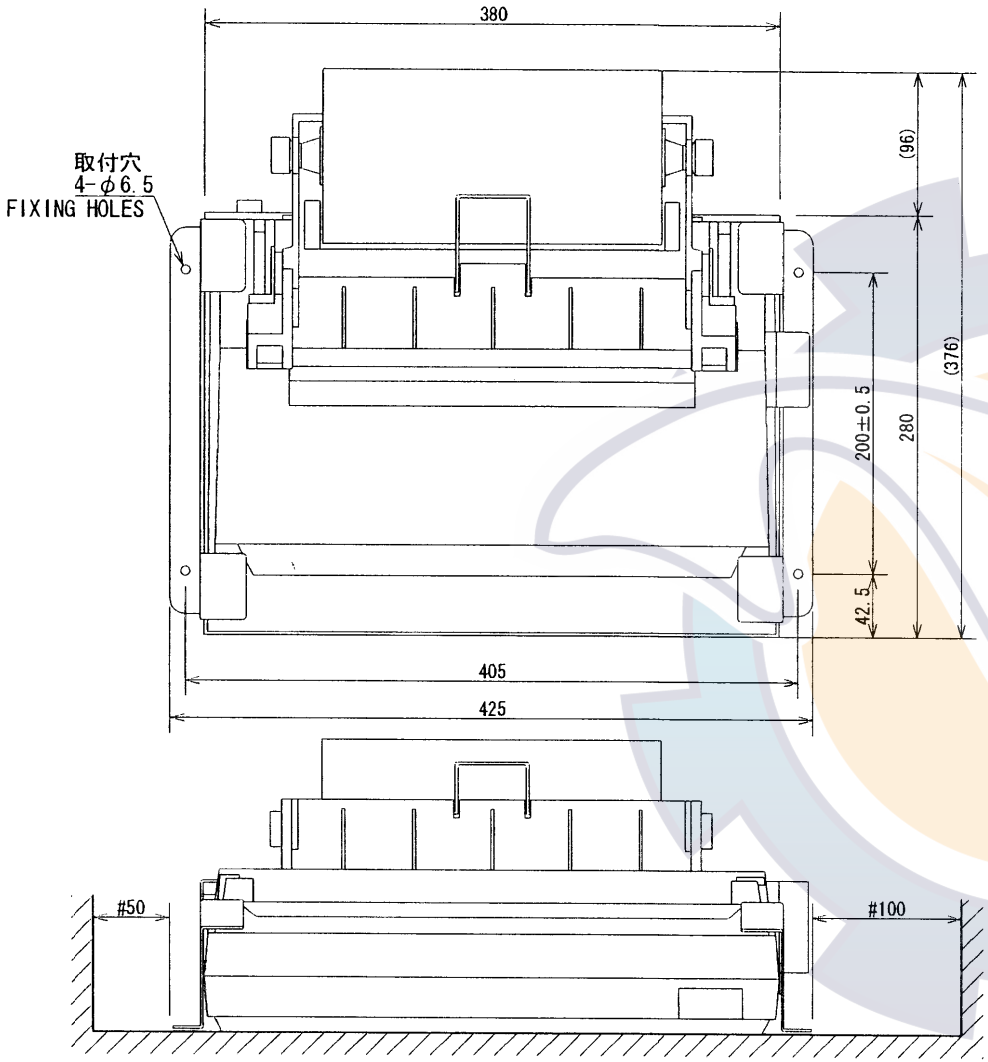
End-of-paper Sensor

The "end-of-paper" sensor alerts you by audible alarm when the paper supply is low. The alarm sounds after each line is printed and five times after 256 lines are printed. Printing stops after 256 lines are printed.

The alarm can be disabled by turning on DIP switch #6. Note however that printing continues even when there is no paper.

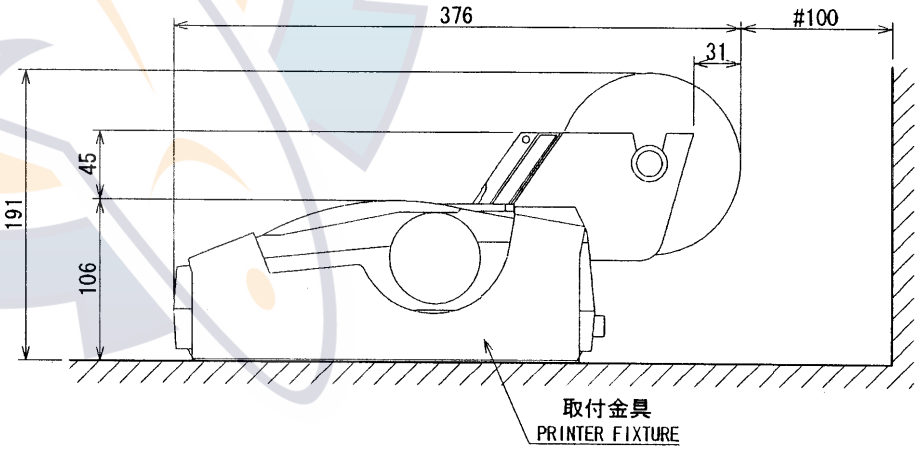


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寸法区分 (mm) DIMENSION	公差 (mm) TOLERANCE
0 ＜ L ≦ 50	±1．5
50 ＜ L ≦ 100	±2．5
100 ＜ L ≦ 500	±3

表 1
TABLE 1



注　記　1）　#印寸法は最小サービス空間寸法とする。
　　2）　指定外の寸法公差は表１による。
　　3）　取付用ネジはＭ６ボルトまたはコーチボルト呼び径６を使用のこと。

NOTE　1. #: RECOMMENDED SERVICE CLEARANCE.
　　2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS.
　　3. USE M6 BOLTS OR COACH BOLTS φ6 FOR FIXING UNIT.

DRAWN July 26'00 T.YAMASAKI			TITLE PP-510
CHECKED July 27'00 T.Kimura			名称 プリンタ
APPROVED July 27'00 T.Kimura			外寸図
SCALE 1/5	MASS ±10% 3.8 kg		NAME PRINTER
DWG. No. C5589-G08- H		16-007-660G- 2	OUTLINE DRAWING

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