

Note Dispenser

Operation Manual



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(1) General Specifications

Applicable Note Size

Width..... 60mm ~ 84mm
 Length.....100mm ~ 180mm
 Thickness...0.1mm(min) ~ 0.2mm (max)

Note Capacity

Approx.100 notes

Voltage

12VDC ± 5%

Power Consumption

0.3A <standby> 2.5A <peak>

Note Dispensing Time

Approx. 1 sec.

Place in Use

Inside cabinet

Operating Position

Upright or within 10° of inclination.

Operating Temperature

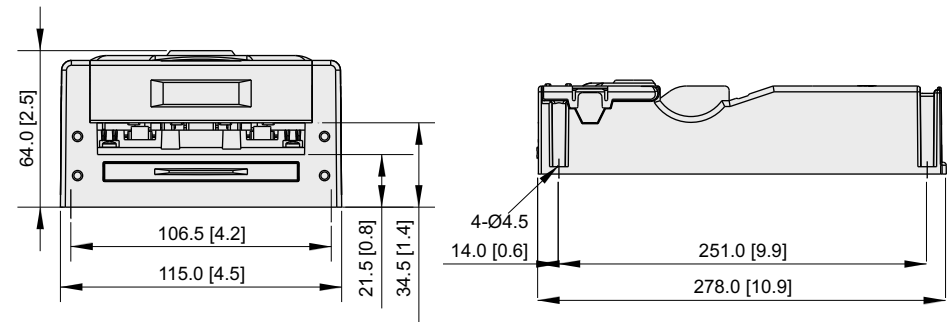
0°C ~ +55°C

Operating Humidity

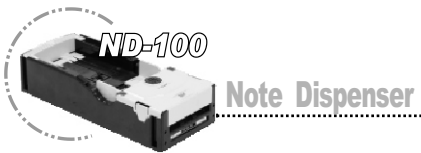
30% to 90% <non-condensation>

Weight

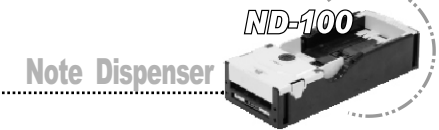
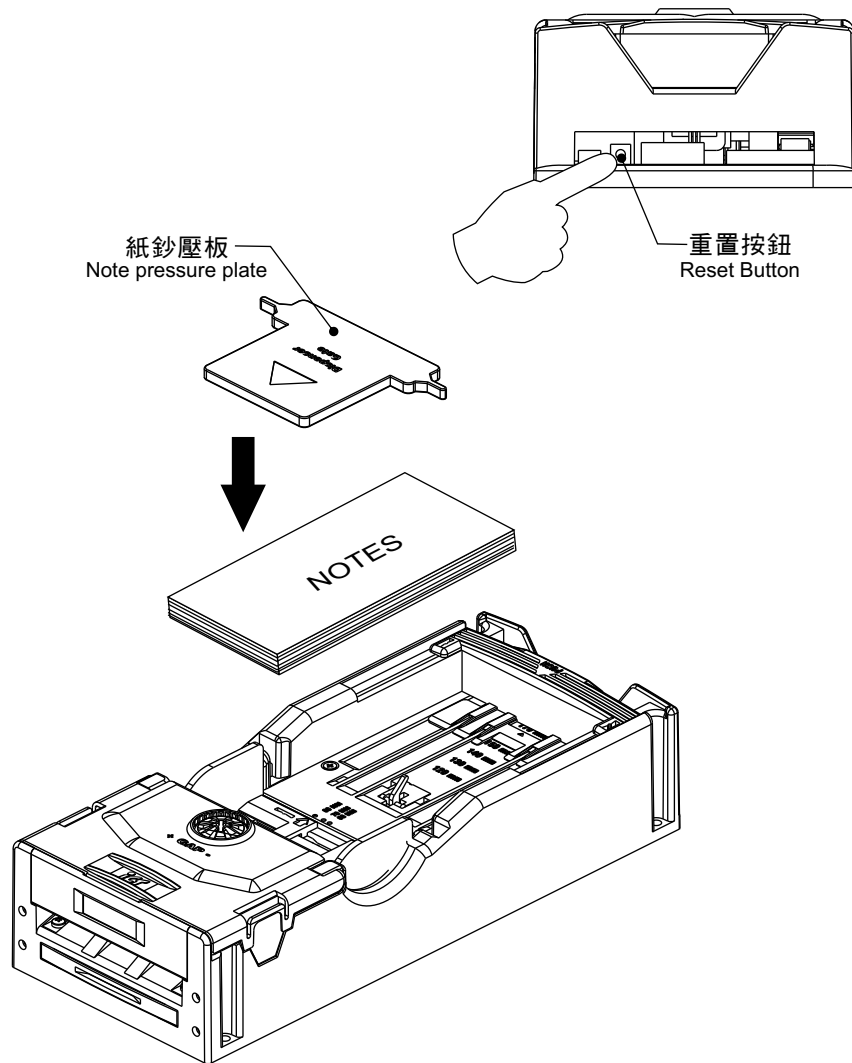
Approx. 1.5 kg



Unit : mm [inch]



(2) How to fill the notes

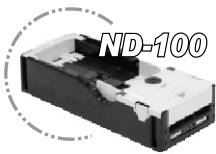


How to fill the notes

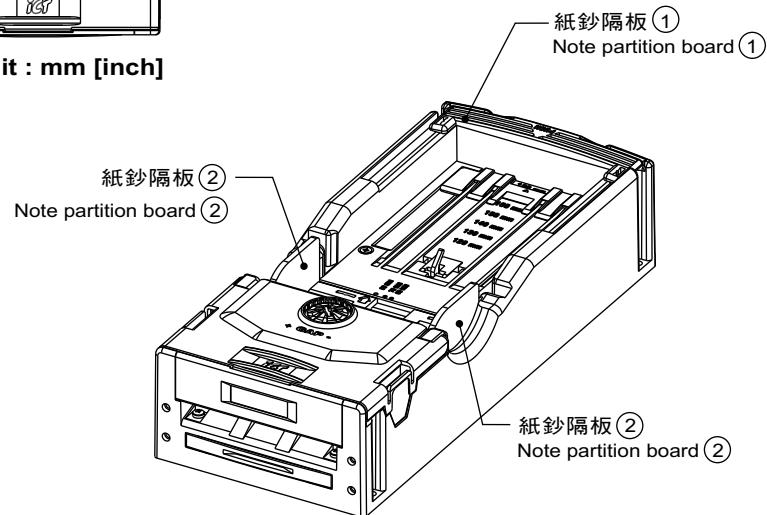
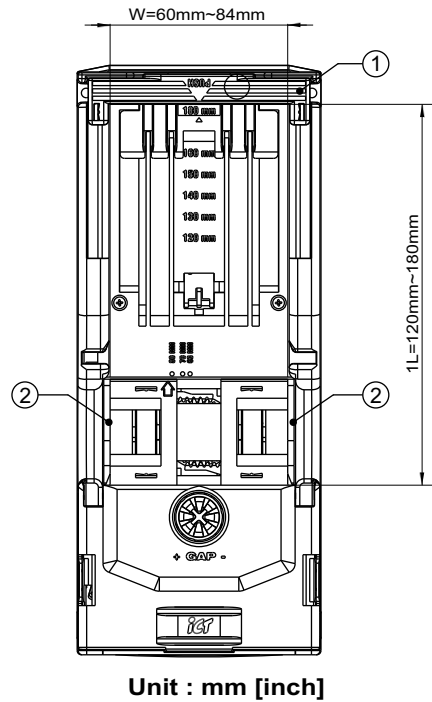
1. As show, take off the (pressure chunk) and put the banknotes or tickets (conpons) into the Note Dispenser.
2. After the filling Banknotes, put the (pressure chunk) on the top of the Banknotes.
3. Push the Reset button on the back of the note Dispenser after the filling Backnotes.
4. Notes Dispenser has memory function. If there is Banknotes left inside, those Banknotes would come out in advance after users push the Reset button.

紙鈔補充方式

1. 如圖示, 將加壓塊拿起後, 放入所要補充之鈔票或禮券.
2. 待鈔票或禮券放入後, 再將加壓塊置於紙鈔上方壓住紙鈔.
3. 補充完畢後, 按下機台後方控制板上之重置按鈕即可繼續使用.
4. 本機器具記憶功能, 如有未出盡餘鈔, 待補充紙鈔完畢後, 按下重置按鈕, 未出盡餘鈔將優先出鈔完畢.



(3) How to adjust the width and length

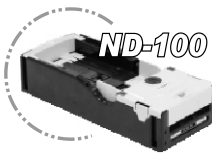


How to adjust the width and length

1. Use the note partition board ① to adjust the length and note partition board ② to adjust the width, as shown in the picture.

紙鈔長度及寬度調整方

1. 如圖示, 可用紙鈔隔板 ① 來調整所需的紙鈔長度, 可用紙鈔隔板 ② 來調整所需的紙鈔寬度.

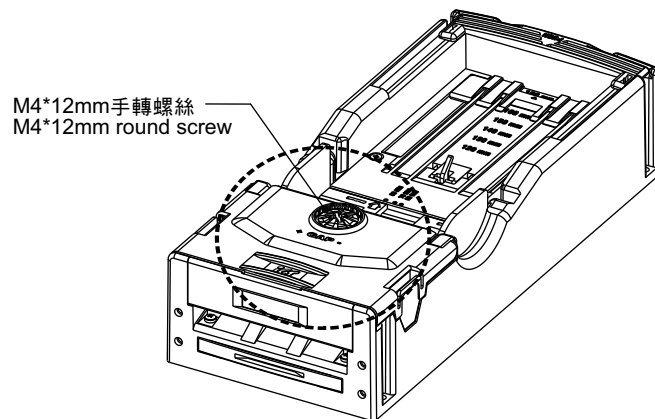


Note Dispenser

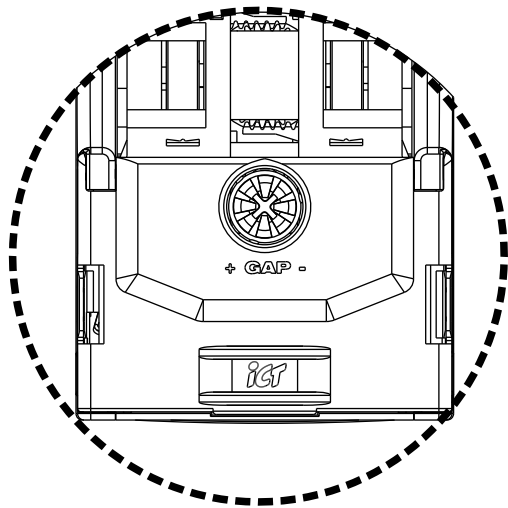
(4) How to adjust thickness the dispenser bezel

* Before using this note dispenser, please make sure the correct thickness level has been adjusted, so the notes can be dispensed smoothly.

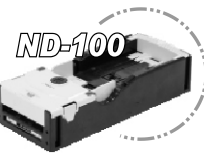
使用機器前，請確定紙鈔厚度調整是否正確，以確保出鈔順暢！



M4*12mm手轉螺絲
M4*12mm round screw



順時針轉GAP-, 間隙越小
逆時針轉GAP+, 間隙越大



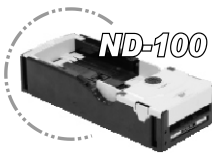
Note Dispenser

How to adjust thickness the dispenser bezel (1)

1. Adjust the gauge by turning the M4*12 phillips screw.
2. Load notes into the dispenser and set DIPSW(4)-ON (5). (6). (7)-OFF (Calibration Mode).
3. Turn the power on and dispensing should start automatically, observe the front LED for the operation status of the dispenser.
4. Red light indicates that the speed of dispensing is too fast.
5. Green light indicates normal dispensing speed.
6. Orange light indicates that the dispensing speed is too slow.
7. After successful calibration, set DIPSW(4)-ON (5). (6). (7)-OFF (Dispense Mode), rest power to start normal operation.

紙鈔厚度調整方式(一)

1. 調整時應將一字起子或手轉動M4*12螺絲至紙鈔可順利進出高度。
2. 將紙鈔放入並將DIPSW撥至(4)-ON (5). (6). (7)-OFF (Calibration Mode)的狀態，開啓電源。
3. 命令機器出鈔將紙鈔送出，此時須注意面板LED之狀況。
4. 當面板LED轉為紅色時，表示出鈔速度過快。
5. 當面板LED轉為綠色時，表示出鈔速度正常。
6. 當面板LED轉為橙色時，表示出鈔速度過慢。
7. 調整成功後，將DIPSW撥至(4)-ON (5). (6). (7)-OFF (Dispense Mode)，重開電源則可開始使用。

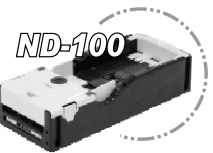


How to adjust thickness the dispenser bezel (2)

1. Using a philip screwdriver to adjust the M4*12 round screw until the adequate height for the note to dispense.
2. Test the note dispensing status after you adjust the height. If it dispenses more than 1 note at the time, please turn the screw anti-clockwise to make it tighter. If it dispenses the note difficultly, then please turn the screw clockwise to loosen it up.

紙鈔厚度調整方式(二)

1. 調整時應將一字起子或手轉動M4*12螺絲至紙鈔可順利進出高度。
2. 調整好後,可先測試出鈔情況,若出鈔超過一張時,請用一字起子將圓頭一字螺絲逆時鐘向下旋緊,若出鈔困難,則順時鐘向上旋鬆,之後再測試出鈔情況至紙鈔可一張一張出鈔即可完成調整。

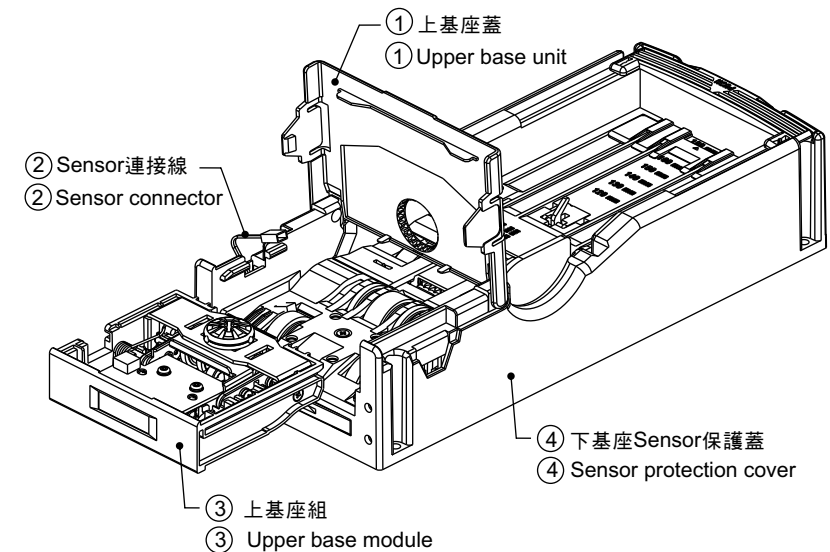


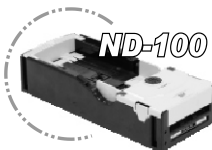
(5) Sensor clear

1. Push the both sides of (upper base unit ①) inward and open it.
2. Released the sensor connector ② from the upper base module and to remove the (upper base module).
3. Clesn the (sensor protection cover ④) regularly.
4. Plug the sensor connector ② back to the upper base module ③ and push back it to the normal position.
Close the upper base unit downward.

Sensor清潔

1. 將上基座蓋 ①之兩側向內壓, 並往上將上基座蓋打開。
2. 將上基座組 ③上SENSOR連接線 ②拆除, 並且將上基座組往後取下。
3. 請定期擦拭SENSOR保護蓋 ④。
4. 再將上基座組 ③裝上並將SENSOR連接線 ②接上, 最後把上基座蓋 ①往下歸位即可。





(6) ND-100 function setting

1. Dipswitch Setting

SW						
ON	1	2	3	Credit Pulse Timing	Machine Number	Note Dispense Mode
★	1	ON	ON	ON	2Sec±5%	Hopper Mode
	2	OFF	ON	ON	1Sec±5%	Hopper Mode
	3	ON	OFF	ON	800ms±5%	Hopper Mode
	4	OFF	OFF	ON	550ms±5%	Hopper Mode
	5	ON	ON	OFF	2Sec±5%	Pulse Mode
	6	OFF	ON	OFF	1Sec±5%	Pulse Mode
	7	ON	OFF	OFF	800ms±5%	Pulse Mode
	8	OFF	OFF	OFF	550ms±5%	Pulse Mode

SW						
ON	4	5	6	7		
★	1	ON	ON	ON	ON	1 Level
	2	OFF	ON	ON	ON	2 Level
	3	ON	OFF	ON	ON	3 Level
	4	OFF	OFF	ON	ON	4 Level
	5	ON	ON	OFF	ON	5 Level
	6	OFF	ON	OFF	ON	6 Level
	7	ON	OFF	OFF	ON	7 Level
	8	OFF	OFF	OFF	ON	8 Level
	9	ON	ON	ON	OFF	9 Level
	10	OFF	ON	ON	OFF	10 Level
	11	ON	OFF	ON	OFF	11 Level
	12	OFF	OFF	ON	OFF	Spare Level
	13	ON	ON	OFF	OFF	Spare Level
	14	OFF	ON	OFF	OFF	Test Mode(300M)
	15	ON	OFF	OFF	OFF	Calibration Mode
	16	OFF	OFF	OFF	OFF	Rally Prearrange Note Data

SW8	Note Study Mode Setting
★ ON	Dispense Mode
OFF	Study Mode

<★> Factory Setting



2. Reset Key :

Press this button (time ≤ 3s) to restart the note dispenser. No need to turn the power off and on again.

Press this button (time > 3s) to card revise mode.

3. Note Dispensing Mode :

(1) Pulse Mode : When the dispenser receives one pulses it will dispense one note.

(2) Hopper Mode : The Note dispenser will begin to dispense note when it receive the dispense command, and will not stop dispensing unit it receives the stop command.

(3) Rs-232 Mode : It receives commands from Rs232 signal to dispense note.

P.S. Pulse Mode or Hopper Mode dispense one note send one Credit and one Counter.

RS232 Mode Dispense one note only send one Counter.

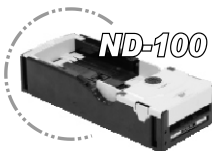
4. RS-232 Command / Response List :

(1) Transmission Specifications

Transmission speed	9600bps
Synchronizing method	Asynchronizing method
Connection control method	Polling method
Data format	Start bit : 1 Data bit : 8 Parity bit : even Stop bit : 1

(2) Message Format

STX	M/S	MachineNumber	Cmd/Status	Data	Checksum
-----	-----	---------------	------------	------	----------



(3) Format Description

	Function	Size	Code
STX	Start code	1 byte	[0x01] : Start code
M/S	Master/Slave code	1 byte	[0x10] : Master code [0x01] : Slave code
Machine Number	Single machine payout	1 byte	Currently is set for 0 ~ 7 (max 8 units interlinked)
	Multiple machines payout		1 bit control 1 machine (LSB is No.0 ; MSB is No.7)
Cmd/Status	Master command code	1 byte	[0x10] : Request payout [0x11] : Request machine status [0x12] : RESET command [0x13] : Request multiple machines payout
	Slave status code		[0x00] : Status fine [0x01] : Note empty [0x02] : Stock less [0x03] : Note jam [0x04] : Over length [0x05] : Note not exit [0x06] : Sensor error (Reserve) [0x07] : Double note Error (Reserve) [0x08] : Motor error [0x09] : Dispensing busy [0x0A] : Sensor Adjusting (Reserve) [0x0B] : Checksum error [0x0C] : Low power error [0xAA] : ACK [0xBB] : NAK
Data	Data code	1 byte	Dispense count
Check Sum	Checking code	1 byte	STX+M/S+MachineNumber +Cmd/Status+Data



(4) Message Description

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum	Description
0x01	0x10	0x00	0x10	Count1	**	Single machine payout
0x01	0x10	0x00	0x11	0x00	**	Request machine status
0x01	0x10	0x00	0x12	0x00	**	Reset dispenser
0x01	0x10	0x01	0x13	Count1	**	Multiple machines payout
0x01	0x01	0x00	0xAA	Count2	**	Payout successful
0x01	0x01	0x00	0xBB	Count2	**	Payout fails
0x01	0x01	0x00	0x00	Count2	**	Status fine
0x01	0x01	0x00	0x01	Count2	**	Empty note
0x01	0x01	0x00	0x02	Count2	**	Stock less
0x01	0x01	0x00	0x03	Count2	**	Note jam
0x01	0x01	0x00	0x04	Count2	**	Over length
0x01	0x01	0x00	0x05	Count2	**	Note not exit
0x01	0x01	0x00	0x06	Count2	**	Sensor error (Reserve)
0x01	0x01	0x00	0x07	Count2	**	Double note error (Reserve)
0x01	0x01	0x00	0x08	Count2	**	Motor error
0x01	0x01	0x00	0x09	Count2	**	Dispensing busy
0x01	0x01	0x00	0x0A	Count2	**	Sensor adjusting (Reserve)
0x01	0x01	0x00	0x0B	Count2	**	Checksum error
0x01	0x01	0x00	0x0C	Count2	**	Low power error

★ Note: (1) Count1 : How many bill do you want dispense
(2) Count2 : How many bill already dispense

(5) Example

A. User requests machine No.0 to dispense 2 bill.

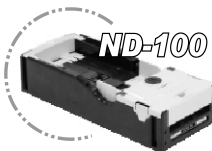
STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x10	0x00	0x10	0x02	0x23

If the note dispensing process is successful ,ND-100 will reply as follow.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x01	0x00	0xAA	0x02	0xAE

If the note dispensing process fails ,ND-100 will reply as follow.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x01	0x00	0xBB	0x0B	0xC8



If the note dispensing process 1 bill and fails ,ND-100 will reply as follow.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x01	0x00	0xBB	0x01	0xBE

B. User request multiple machines No.1 and No.2 and No.5 and No.6 to dispense 1 bill.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x10	0x66(01100110)	0x13	0x01	0x8B

★ Note : The ND-100 will not response anything in this command.

After request command user needs to poll the machine status by yourself.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x10	0x01	0x11	0x00	0x23

If the note dispensing process is successful ,ND-100 will reply as follow.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x01	0x01	0xAA	0x01	0xAE

If the note dispensing process fails ,ND-100 will reply as follow.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x01	0x01	0xBB	0x00	0xBE

Other machines No.2 and No.5 and No.6 are poll the same as above.

C. User request all machines to dispense 5 bill.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x10	0xFF(11111111)	0x13	0x05	0x28

After request command user needs to poll the all machines status.

STX	M/S	Machine Number	Cmd/Status	Data	CheckSum
0x01	0x10	0x00~0X07	0x11	0x00	0x22~0x29

And check all machines status as follow example 2.



(6) LED Message

Green Color

Flash	Status
0	Status fine
1	Dispensing busy

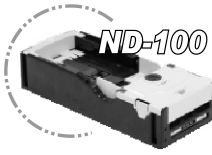
Orange Color

Flash	Status
0	Stock less
1	Sensor adjusting
2	Note not exit

Red Color

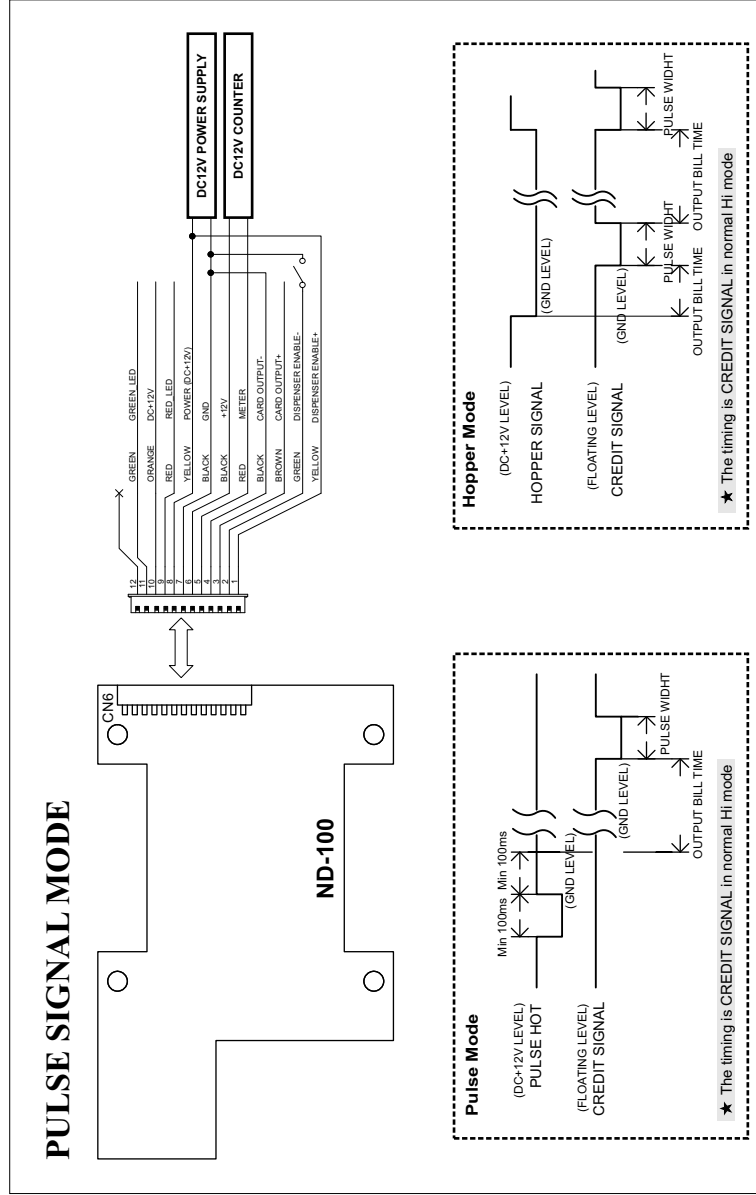
Flash	Status
0	Empty note
1	Note jam
2	Over length
3	Sensor error
4	Double note error
5	Motor error
6	Checksum error

Flash Interval Approximately 1s



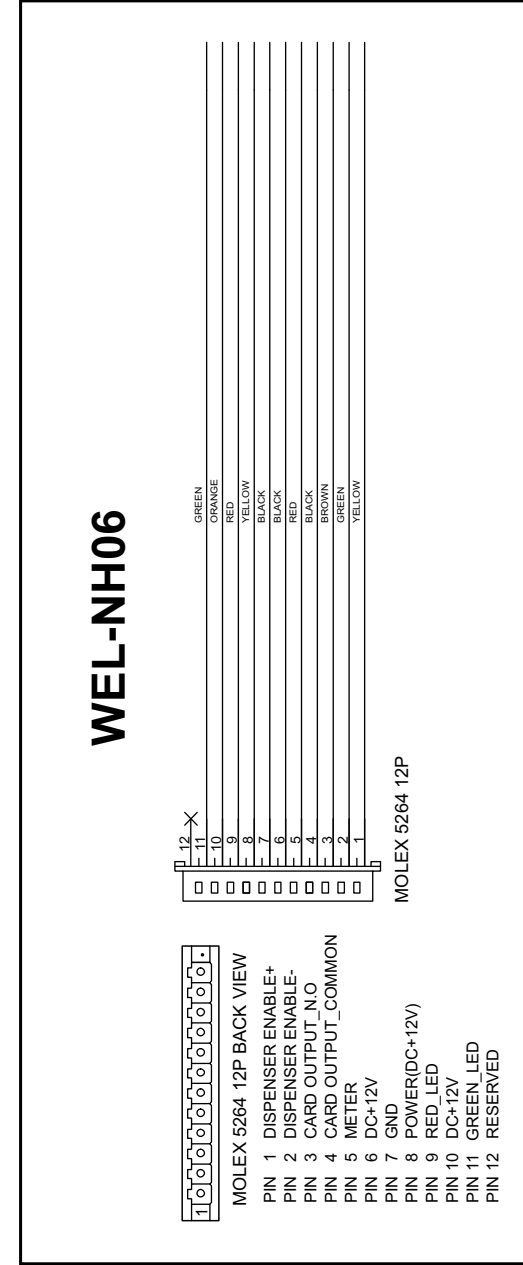
Note Dispenser

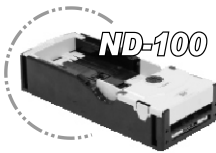
(7) Timing Chart



Note Dispenser

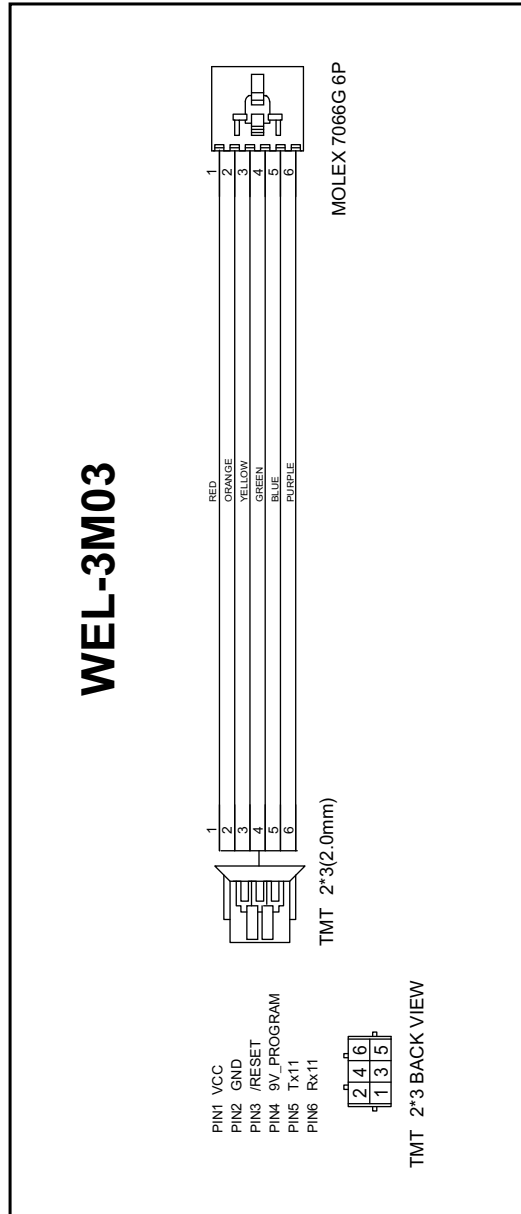
(8) Cable :





ND-100
Note Dispenser

(9) Download Line



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