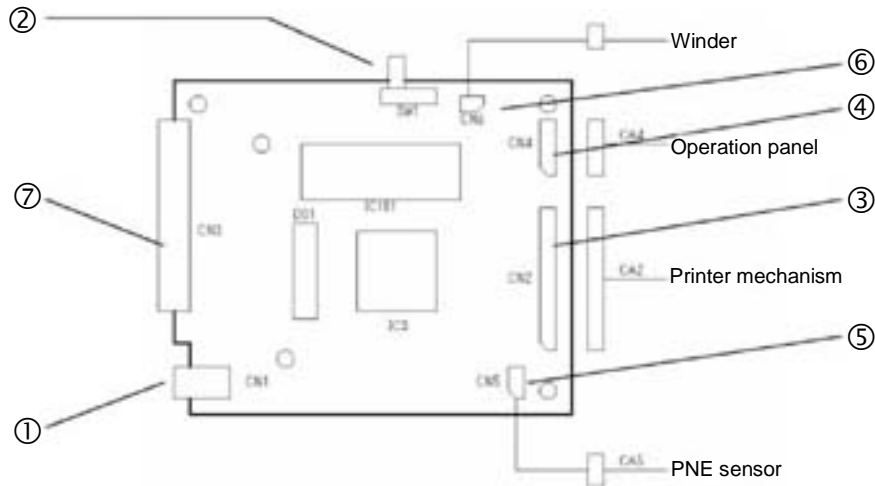


3. APPEARANCE AND CONNECTORS

3.1. Appearance



- | | |
|--|--|
| ① DC Jack: | Plug the AC adapter or DC output plug of the power supply. |
| ② Power switch: | When this Power switch is turned ON, power is supplied to the board and initializing operation starts. |
| ③ Connector for mechanism connection (CN2): | Connected to MD910 (24 digits) or MD911 (40 digits). |
| ④ Connector for operation panel (CN4): | Connected to the operation panel. For the functions, refer to the following descriptions. |
| a) POWER lamp: | Lights when the Power switch is set to ON and goes off when the Power switch is set to OFF.
Blinks while memory switch is set or at the occurrence of memory error. |
| b) SEL lamp: | Lights when this board is in the Select (online) state and goes off when it is in the Deselect (offline) state. Printing occurs only when this lamp is ON.
1) Blinks at intervals of 0.5 s at the occurrence of Paper End.
Goes off when the SEL switch is pressed after paper is set.
2) Blinks at intervals of 1/4 s at the occurrence of Alarm state (blinking state) due to the cause other than Paper End. This lamp goes off when the SEL switch is pressed after removing the cause of the alarm or when printer power is reset. |
| c) LF switch: | Pressing this switch causes a paper feed (only in Deselect state). This switch is used when loading a paper or when using a space. |
| d) SEL switch: | When this switch is pressed, this board is set to the Select (online) state. Pressing this switch again causes the board to be set to the Deselect (offline) state. This switch is also used when removing the alarm state. When the printer is set to the Deselect state, all data, if present in the input buffer, is printed. |
| ⑤ Connector for Paper Near End sensor (CN5): | Connector for Paper End (paper detection) |

- | | |
|----------------------------------|--|
| ⑥ Connector for winder (CN6): | Connector for connecting Winder (for controlling the motor for auto paper winding device) (Option) |
| ⑦ Connector for Interface (CN3): | Either parallel or serial connector is present depending on the board type.
Connects to each host through a cable. Before connecting the connector, make sure the host and board are powered off. |

3.2. Connector for Power Supply

Connector used: CN1: MOJ-D14 (Iizuka Electric)



Electrical Specifications

Input voltage: 7 to 15 V DC

Current at non printing: 0.15 A average

Current at printing: 0.80 A average (approx. 7.5 A at peak)

The above value is at temperature of 25°C and normal humidity.

Average current is the value with print rate of 12.5%.

The values vary with the printing condition, environment of use, operating conditions, etc.

Precautions

1. Before connecting or disconnecting a connector, make sure the printer power is turned off.
2. Always use the power voltage within the specified range.



Caution

- When the power supply other than specified is used, bad effect may occur on printing operation, etc. When the printer is operated continuously, electronic components in the board may generate heat. Use the printer paying full attention to heat dissipation.
- When the power supply with insufficient peak current is used, degradation of print quality may occur depending on the printing state.
- Be sure to prepare for easy turning off the power supply in case of power failure.
- Power supply with various kinds of protective circuits such as overvoltage protection and overcurrent protection is recommended.
- If any abnormality such as abnormal odor is sensed during operation, turn the power supply off quickly.

3.3. Connecting Mechanism

Connector used: CN2: 5267-17A (Molex)

Cord Assy: Set up the connection shown in the following figure using CA2 (with connector 5264-17).

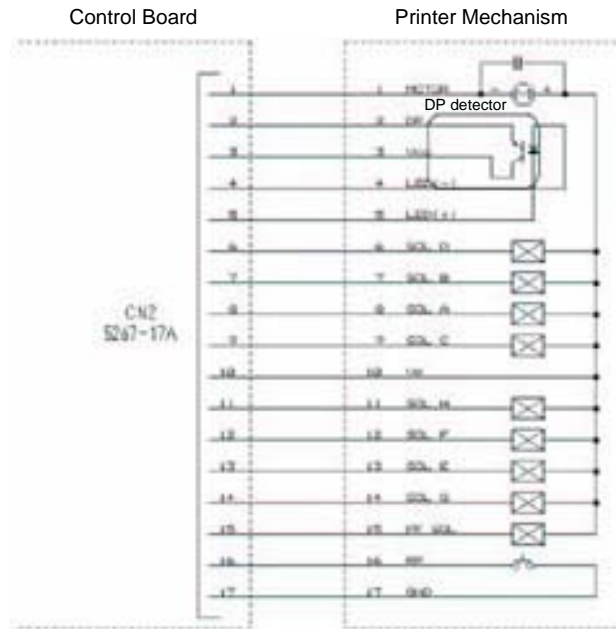


Table: Head Driving Connector Pin Specifications

Pin No.	Signal Name	Input/Output	Function
1	MOTOR	Output	Motor drive signal
2	DP	Input	Photo interrupter emitter (dot pulse detector)
3	Vcc	—	Photo interrupter connector (dot pulse detector)
4	LED (-)	Output	Photo interrupter LED control signal
5	LED (+)	—	Photo interrupter anode (dot pulse detector)
6	SOL D	Output	Printing solenoid D drive signal
7	SOL B	Output	Printing solenoid B drive signal
8	SOL A	Output	Printing solenoid A drive signal
9	SOL C	Output	Printing solenoid C drive signal
10	Vp	—	Power supply for driving
11	SOL H	Output	Printing solenoid H drive signal
12	SOL F	Output	Printing solenoid F drive signal
13	SOL E	Output	Printing solenoid E drive signal
14	SOL G	Output	Printing solenoid G drive signal
15	PF SOL	Output	PF solenoid drive signal

Pin No.	Signal Name	Input/Output	Function
16	RP (HP)	Input	Reset pulse switch input signal
17	GND	—	GND

3.4. Connecting Operation Panel

Connector used: CN4: 5267-06A (Molex)

Cord Assy: Set up the connection shown in the following figure using CA4 (with connector 5264-06).

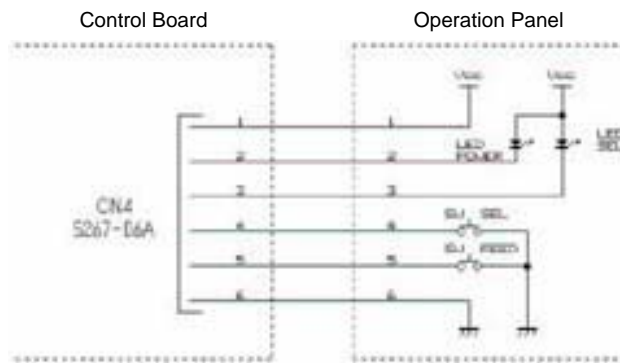


Table: Operation Panel Pin Specifications

Pin No.	Signal Name	Input/Output	Function
1	Vcc	—	Power supply for circuits
2	PWR/PE LED	Output	PWR/PE LED control signal
3	SEL LED	Output	SEL LED control signal
4	SEL SW	Input	SEL SW input signal
5	FEED SW	Input	FEED SW input signal
6	GND	—	GND



Caution

- (1) For the POWER and SEL LEDs, a resistance of 330 Ω is provided at the circuit side to adjust the current to 10 mA. Use the LED with forward voltage of about 2 V. Do not use LED exceeding 10 mA. Otherwise, the control may be damaged.
- (2) The input terminals for LF-SW and SEL-SW have the above circuit. Though a ceramic capacitor is inserted in the circuit for preventing chattering, large chattering may occur depending on the switch.
- (3) Apply insulation processing to the terminal not in use to prevent the end of the cable from contacting other terminal or parts.

3.5. Connecting Paper Near End Sensor

Connector used: CN5: 5267-03A (Molex)

Cord Assy: Set up the connection shown in the following figure using CA5 (with connector 5264-03).

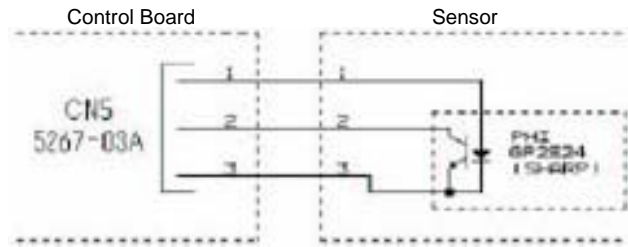
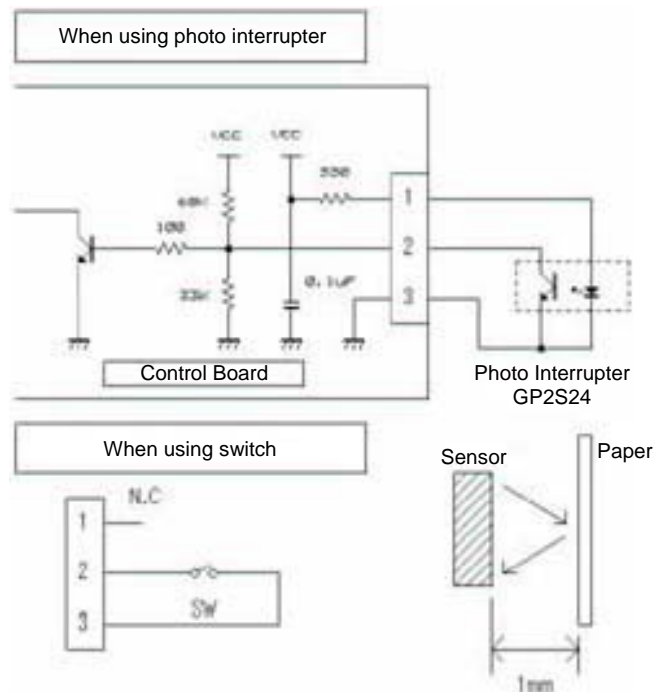


Table: Paper Near End Pin Specifications

Pin No.	Signal Name	Input/Output	Function
1	PNE PWR	—	Photo interrupter anode
2	PNE SIG	Input	Photo interrupter collector
6	GND	—	Photo interrupter cathode/emitter

Reference Circuit Diagram



* The above circuit is an example of reflection type photo interrupter. When using the above sensor, allow a clearance of approx. 1 mm from paper.

As the sensor used is different in electrical characteristics, use the sensor after fully recognizing it.

* The voltage detection range of the board (between 2 and 3) is as follows:

0 to 0.4 V: With paper

1 V or more: Without paper

Detection status other than the above is out of warranty.

3.6. Connecting Winder

Connector used: CN6: B2B-XH-A (JST9)

Set up the connection shown in the following figure.

Voltage for the winder motor is applied at the same timing as that for the motor for printer mechanism.

Printing deviation may be caused by the torque of winding.

