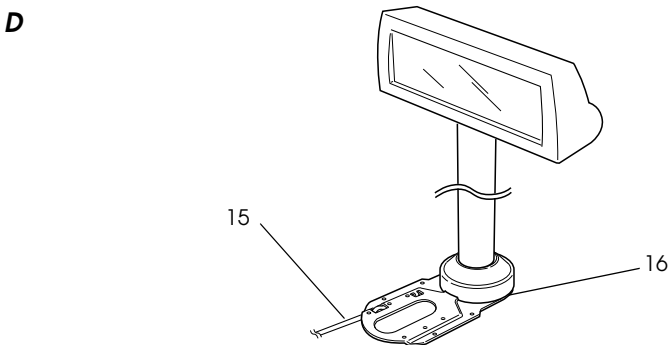
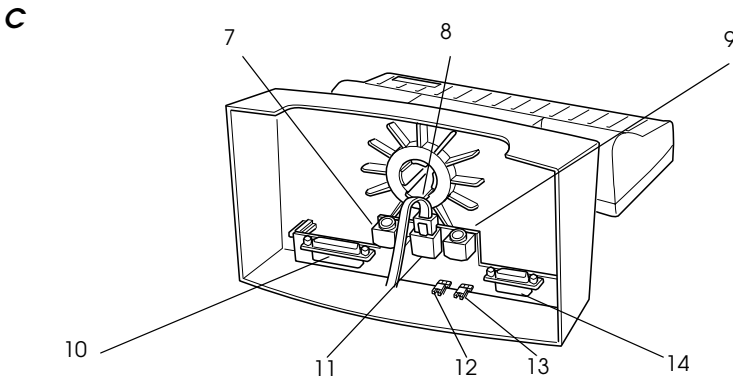
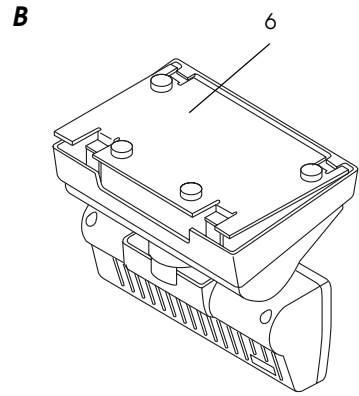
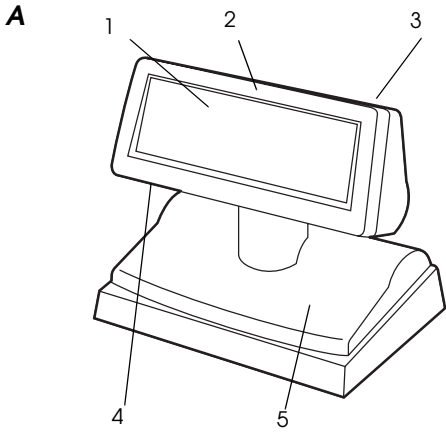


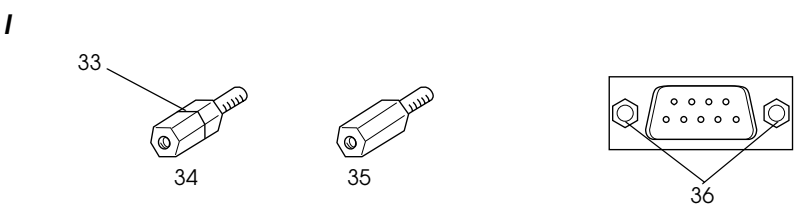
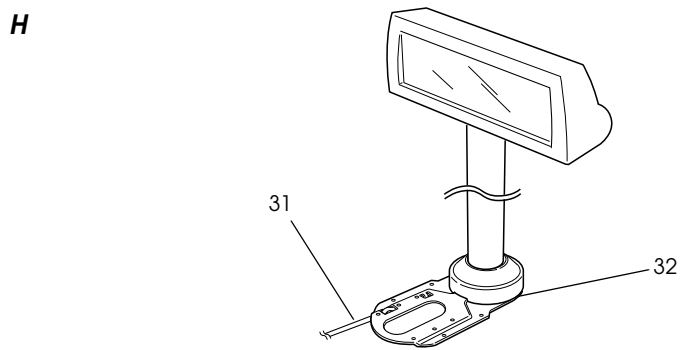
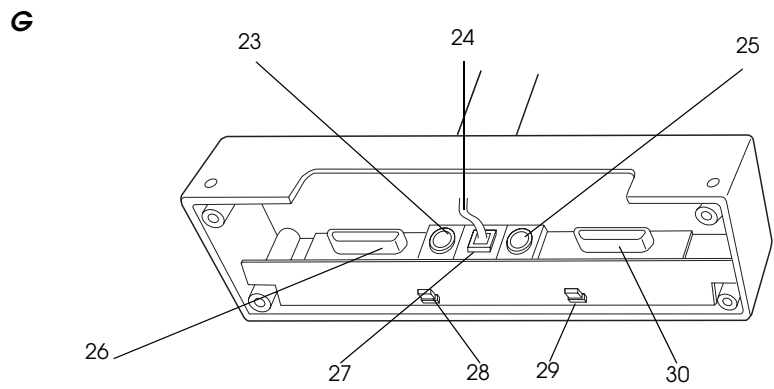
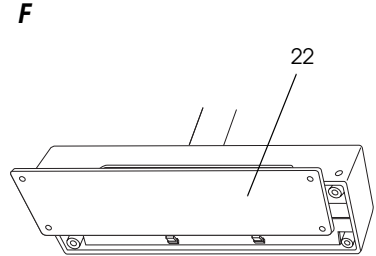
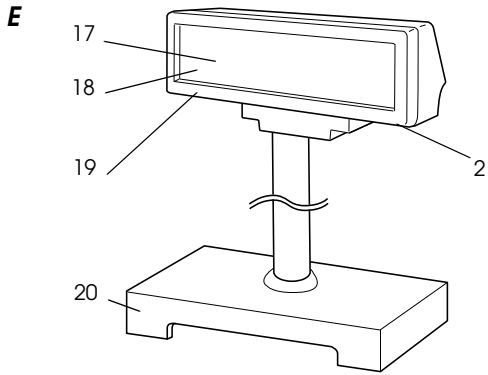
DM-D110/D210

User's Manual 1

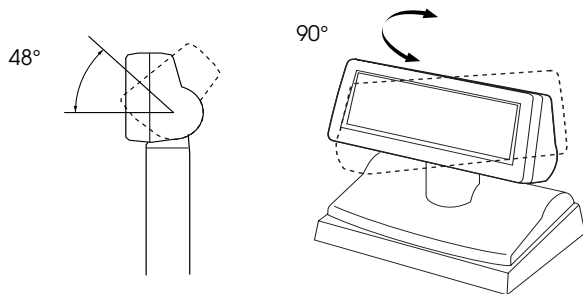
ユーザー手册 11

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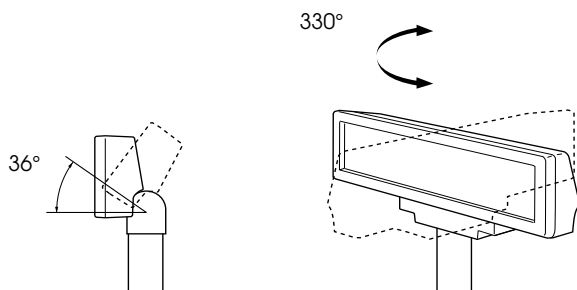




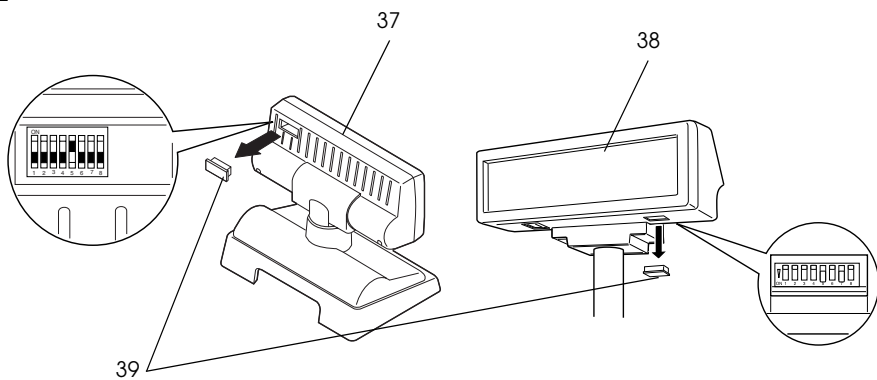
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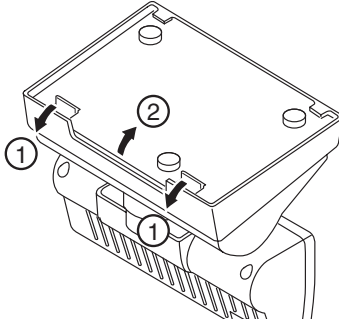
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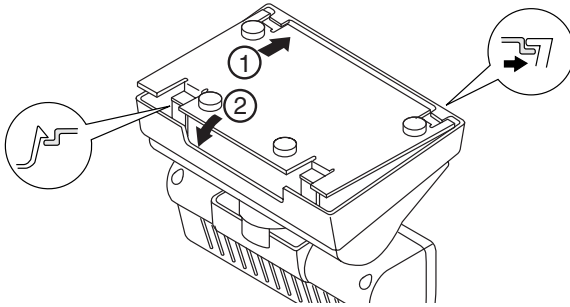
L



M



N



DM-D110/D210

User's Manual

Illustrations

All of the illustrations are at the beginning of this manual. They are identified by letters (A, B, C . . .). Some of the illustrations have numbers in them. See the list below for the meaning of the numbers.

Illustration A:

1. Screen
2. DM-D110
3. DIP switch (rear side of the display)
4. POWER switch (bottom of the display)
5. Stand (DP-110)

Illustration B:

6. Plate

Illustration C:

7. Power Supply Connector
8. DM-D110 Cable
9. Power Supply Extension Cable Connector
10. PC Connector
11. DM-D110 Connector
12. JP1
13. JP2
14. Printer Connector

Illustration D:

15. Connection to the DM-D110 Cable Printer
16. DP-502

Illustration E:

17. Screen
18. DM-D210
19. POWER Switch (rear side of the display)
20. Stand (DP-210)
21. DIP Switch (bottom of the display)

Illustration F:

22. Plate

Illustration G:

23. Power Supply Connector
24. DM-D210 Cable
25. Power Supply Extension Cable Connector
26. PC Connector
27. DM-D210 Connector
28. JP1
29. JP2
30. Printer Connector

Illustration H:

31. Connection to the DM-D210 Printer Cable
32. DP-502

Illustration I:

33. Grooves (1 or more)
34. Inch Screws
35. Metric Screws
36. Screw for Attaching the RS-232 Connector

Illustration L:

37. DM-D110
38. DM-D210
39. DIP switch

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EMC and Safety Standards Applied

EMC and Safety Standards Applied

Product Name: DM-D110/DM-D210

Model Name: M58DB/M59DB

The following standards are applied only to the display that is so labeled. (EMC is tested using the EPSON power supplies.)

Europe: CE marking

Safety: EN 60950-1

North America: EMI: FCC/ICES-003 Class A

Safety: UL 90650-1/CSA C22.2

No. 60950-1

Japan: EMC: VCCI Class A

Oceania: EMC: AS/NZS CISPR22 Class B

WARNING

You are cautioned that changes or modifications not expressly approved by SEIKO EPSON Corporation could void your authority to operate the equipment.

CE Marking

The display conforms to the following Directives and Norms:

Directive 89/336/EEC

EN 55022 Class B

EN 55024

IEC 61000-4-2

IEC 61000-4-3

IEC 61000-4-4

IEC 61000-4-5

IEC 61000-4-6

IEC 61000-4-11

FCC Compliance Statement For American Users

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

FOR CANADIAN USERS

This Class A digital apparatus complies with Canadian ICES-003.

À l'intention des utilisateurs canadiens

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

GERAUSCHPEGEL

Gemas der Dritten Verordnung zum Gerätesicherheitsgesetz (Maschinenlarminformations- Verordnung- 3. GSGV) ist der arbeitsplatzbezogene Geräusch-Emissionswert kleiner als 70 dB(A) (basierend auf ISO 7779).

Safety Precautions

This section presents important information intended to ensure safe and effective use of this product. Please read this section carefully and store it in an accessible location.

⚠ WARNING:

Shut down your equipment immediately if it produces smoke, a strange odor, or unusual noise. Continued use may lead to fire. Immediately unplug the equipment and contact your dealer or a Seiko Epson service center for advice. Never attempt to repair this product yourself. Improper repair work can be dangerous.

Never disassemble or modify this product. Tampering with this product may result in injury or fire.

Be sure to use the specified power source. Connection to an improper power source may cause fire.

Do not allow foreign matter to fall into the equipment. Penetration by foreign objects may lead to fire.

If water or other liquid spills into this equipment, unplug the power cord immediately, and then contact your dealer or a Seiko Epson service center for advice. Continued usage may lead to fire.

⚠ CAUTION:

Do not connect cables in ways other than those mentioned in this manual. Different connections may cause equipment damage and burning.

Be sure to set this equipment on a firm, stable, horizontal surface. The product may break or cause injury if it falls.

Do not use in locations subject to high humidity or dust levels. Excessive humidity and dust may cause equipment damage or fire.

Do not place heavy objects on top of this product. Never stand or lean on this product. Equipment may fall or collapse, causing breakage and possible injury.

Do not connect multiple extension struts. If the device topples over, there is a risk of damage or injury.

The horizontal rotating angle of the screen unit is limited by a stopper. Do not apply excess force to rotate the screen unit past the limit set by the stopper. Doing so may cause damage.

When you are attaching and detaching the cable, always check that the power switches of the customer display and the unit that it is connected to are turned off.

Take care when handling the customer display not to drop or knock it because it has a built-in fluorescent display tube.

If you do not use this product for an extended period of time, always disconnect the power cord for safety. If you move the product, ensure that the power cord is disconnected and that all of the cables are disconnected before moving it.

Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause fire.

Part Names

See Illustrations **A** through **H**.

Option

Each of the options are used depending on the way the product is installed.

- Illustration **A** DM-D110+DP-110 (Stand)
- Illustration **D** DM-D110+DP-502 (TM Printer Connection Option)
- Illustration **E** DM-D210+DP-210 (Stand)
- Illustration **H** DM-D210+DP-502 (TM Printer Connection Option)

Unpacking

The following items are included with the standard specification Customer Display. If any item is damaged, contact your dealer.

- Customer Display DM-D110/DM-D210
- User's Manual

Downloading Drivers, Utilities, and Manuals

Drivers, utilities, and manuals can be downloaded from one of the following URLs.

For customers in North America, go to the following web site:
<http://www.epsonexpert.com/> and follow the on-screen instructions.

For customers in other countries, go to the following web site:
<http://www.epson-pos.com/>

Select the product name from the "Select any product" pulldown menu.

Precautions when Installing

- ❑ Ensure that the power switches of the customer display and the device that it is connected to are turned off before connecting the cable.
- ❑ The RS-232 connector of the stand (DP-110/210) is fitted with inch screws (hex nuts). Replace these with the included metric screws if you need metric screws. The inch screws and metric screws can be distinguished by the presence or lack of grooves (see Illustration **H**).
- ❑ Refer to the DM-D110 Technical Reference Guide or the DM-D210 Technical Reference Guide for information on how to install the device.

Power Switch On/Off

Set the power switch on the base of the display unit to “I” to turn the power on and execute the memory test. Nothing is displayed on the screen if the test finishes normally. An error message is displayed if an error is detected.

Set the power switch to “O” to turn the power off.

Turn on the power to the customer display before turning on the power of the computer, printer or other host devices.

Note:

If you are connecting to the USB model of the EPSON TM printer, always ensure that you turn on the power to the customer display first. If you turn on the power to the customer display too late, the system may not be able to detect the customer display.

Changing the Orientation of the Display Unit

The angle and direction of the display unit can be changed by pressing on the struts with your hand while moving the display unit. The display unit will move with only light pressure, so do not apply more pressure once the unit stops moving. Applying excess force to move the display unit may cause damage.

When installed in the IR-700 or TM printer, there may be situations where the display unit cannot be turned to the desired direction. In these situations, remove the customer display and base unit, then adjust the position of the lug in the base unit before reattaching.

The range of movement of the display unit is given in the following table. (DM-D110: Illustration **J**, DM-D210: Illustration **K**)

	DM-D110	DM-D210
Tilt	Maximum Angle 48° (4 Steps, 5 Positions)	Maximum Angle 36° (3 Steps, 4 Positions)
Horizontal Rotation	Maximum Angle 90° (45° Left or Right)	Maximum Angle 330°

Self Test

A self-test function is built into the DM-D110 and DM-D210. Execution of the self-test function can be configured using the DIP switches.

Self-Test Items

The self-test performs the following steps.

- Displays the version of the firmware
- Displays the configuration of the DIP switches
- Displays the configuration of the memory switches
- Introduces the display text
- Introduces each of the functions (brightness, blinking, scrolling, etc.)

Executing the Self Test

The self-test can be executed using the following procedure.

1. Turn off the power switch.
2. Set SW1-8 of DIP switch 1 to ON.
3. Turn on the power switch. The self-test screen is displayed.

If the self-test is completed successfully, the unit enters data reception standby mode.

DIP Switches

The DIP switches configure the communication settings and whether a self-test is required.

CAUTION:

Do not remove the DIP switch cover until after turning the power off. Removing the cover while the power is turned on may damage the device.

Use the following procedure to configure the DIP switches.

1. Turn the power switch off.
2. Remove the DIP switch cover.
3. Use a pointed object to flip the switches.
4. Attach the cover and turn the power switch on.

DIP Switch 1 Functions

DSW1 No.	Function	ON	OFF	Default Setting
1-1	Received Error Data	Ignore	"?" Display	OFF
1-2	Receive Data Length	7bit	8bit	OFF
1-3	Parity	With Parity	No Parity	OFF
1-4	Parity Selection	Even	Odd	OFF
1-5	Communication Speed Switching	Refer to "Transfer Speed Switching"		ON
1-6				OFF
1-7				ON
1-8	Execute Self-Test (*1)	Yes	No	OFF

(*1) Executes the self-test once only when the power is turned on.

Transfer Speed Switching

SW1-5	SW1-6	SW1-7	Transfer Speed (bps)
ON	ON	ON	2400
OFF	ON	ON	4800
ON	OFF	ON	9600*1
OFF	OFF	ON	19200*2
ON	ON	OFF	38400
OFF	ON	OFF	57600
ON	OFF	OFF	115200
OFF	OFF	OFF	(Reserved)

*1 Default Setting

*2 Setting that is used when connecting to the USB model of the EPSON TM printer.

Jumper

There are jumpers in the stand (DP-110/210) that configure whether a TM printer is connected to the DM-D110/210.

CAUTION:

Turn the power off before changing the jumper settings. Changing the jumper settings while the power is turned on may damage the device.

Use the following procedure to change the jumper settings.

1. Turn off the power switch; then remove the power cable from the stand.
2. Remove the plate from the base of the stand. For the DM-D110, press the two clips while lifting out the plate to remove the plate (see Illustration **M**). For the DM-D210, remove the two screws to remove the plate.
3. Change the jumper settings.
4. Attach the plate. For the DM-D110, press down on the plate until it latches into the clips on the stand (see Illustration **N**).

DM-D110

See Illustration **C** for the location of the jumpers.

JP1	JP2	Details
1-2	1-2	Use this setting if you are connecting and using both the TM printer and this device. (Default Setting)
2-3	2-3	Use this setting if you are using the DM-D stand in a stand-alone configuration without connecting a TM printer.

DM-D210

See Illustration **G** for the location of the jumpers.

JP1	JP2	Details
1-2	1-2	Use this setting if you are connecting and using both the TM printer and this device. (Default Setting)
2-3	2-3	Use this setting if you are using the DM-D stand in a stand-alone configuration without connecting a TM printer.

Specifications

DM-D110

Model		DM-D110	DM-D110 + DP110	DM-D110 + DP502
Display type		Fluorescent tube display		
Number of characters displayed		40 characters (20 columns × 2 rows, 5 × 7 dot matrix)		
Display color		Green (505 nm)		
Brightness		690 cd/m ²		
Character classes		Alphanumeric: 95 characters International characters: 37 characters Graphic characters: 128 characters × 12 pages		
Character composition		5 × 7 dot matrix, cursor		
Character size		3.5 × 5.0 mm		
Character pitch		5.2 mm		
Interface	Standard	RS232C Compliant		
	Connector	RJ-45	D-Sub 25 pin (female)	RJ-45
Reliability		Lifespan 20,000 hours		
Power supply voltage		DC 11.4 V ~ 48 V		
Power consumption		Approximately 2 W		
External dimensions	Display unit	165 (W) × 50.5 (D) × 69 (H) mm		
	Base unit	-	165 (W) × 110 (D) × 63 (H) mm	78 (W) × 164 (D) × 260 (H) mm
	External	165 (W) × 50.5 (D) × 69 (H) mm	165 (W) × 110 (D) × 135 (H) mm	165 (W) × 164 (D) × 331 or 451 (H) mm
Weight		Approximately 0.29 kg	Approximately 0.65 kg	Approximately 0.55 kg
Color		Cool white, Dark gray		
Tilt angle		Maximum 48° (4 steps)		
Horizontal rotation angle		-	Maximum 90°	Maximum 330°
Power supply		Supplied by system	PS-180 (Option)	Supplied by TM printer

DM-D210

Model		DM-D210	DM-D210 + DP210	DM-D210 + DP502
Display type		Fluorescent tube display		
Number of characters displayed		40 characters (20 columns × 2 rows, 5 × 7 dot matrix)		
Display color		Green (505 nm)		
Brightness		700 cd/m ²		
Character classes		Alphanumeric: 95 characters International characters: 37 characters Graphic characters: 128 characters × 12 pages		
Character composition		5 × 7 dot matrix, comma/period/annunciator		
Character size		6.5 × 11.3 mm		
Character pitch		9.9 mm		
Interface	Standard	RS232C Compliant		
	Connector	RJ-45	D-Sub 25 pin (female)	RJ-45
Reliability		Lifespan 20,000 hours		
Power supply voltage		DC 11.4 V ~ 48 V		
Power consumption		Approximately 6 W		
External dimensions	Display unit	260 (W) × 60 (D) × 83 (H) mm		
	Base unit	-	260 (W) × 110 (D) × 53 (H) mm	78 (W) × 164 (D) × 260 (H) mm
	External	260 (W) × 60 (D) × 83 (H) mm	260 (W) × 110 (D) × 383 or 503 (H) mm	260 (W) × 164 (D) × 360 or 480 (H) mm
Weight		Approximately 0.6 kg	Approximately 0.98 kg	Approximately 0.85 kg
Color		Cool white, Dark gray		
Tilt angle		Maximum 36° (3 steps)		
Horizontal rotation angle		Maximum 330°		
Power supply		Supplied from system	PS-180 (Option)	Supplied by TM printer

