SHARP INSTALLATION MANUAL

CODE: 00ZUP5300VIME



POS TERMINAL

MODEL UP-5300

("V" version)

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Parts marked with "A" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

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Precautions

- Before installation, be sure to turn off the power.
- Use gloves to protect your hand from being cut by the angle and the chassis.
- Connect all the cables securely. When connecting or disconnecting the cables, be careful not to apply stress to the cables. (It may cause disconnection.)
- Ground the human body to prevent against troubles and dust adhesion to the LCD by static electricity. When assembling the LCD, use a discharge blower to prevent against dust intrusion.
- Be careful to the high voltage of the invertor PWB transformer.
- About placing top cabinet with LCD panel side down, Please use a clean dust free clothe to protect the touch panel and LCD area.

1. Removing the Rear display filter

- 1) Remove the two Screws 1.
- 2) Remove the Rear display filter 2.

2. Replacing the Rear display filter

Install the Rear display filter in the reverse order of removing.

3. Removing the Top cabinet

- 1) Remove the two Screws (1).
- 2) Remove the Side cabinet \overline{O} .
- 2) Remove the Screw 2.
- 3) Remove the Printer cover (3).
- 4) Remove the Screw ④.
- 5) Remove the Top cabinet (8).
 - a) Release the latches (a), (b) and (c) in that order. Slide the upper cabinet to the right and release the latch on the right.
 - b) Lift the top cabinet and put it straight in the direction of arrow
 A. (Be careful not to pull the cable between the LCD I/F PWB of the top cabinet and the MAIN PWB of the Bottom cabinet.)
 - c) Pull and remove the following cables between the LCD I/F PWB of the top cabinet and the MAIN PWB of the Bottom cabinet.
- LCD Cable (5): MAIN PWB: CN11
- Earth wire 6.



4. Replacing the Top cabinet

Install the top cabinet in the reverse order of removing. Before installing, make sure that each connector is connected securely.



5. Removing the power supply unit and AC cord

- 1) Remove the two screws 1.
- 2) Remove the AC cord cover 2.
- 3) Remove the four screws (8).
- 4) Remove the P/S cover \bigcirc .
- 5) Use a minus screwdriver (Å) to loosen the AC cord fixing screws (2 pcs.) of the power supply unit.
- Remove the screw ④ and the earth wire ⑤ from the AC cord. Remove the screw ⑧ of the holder securing the earth wire of the AC cord.
- 7) Remove the power supply cable 6.
- 8) Remove the three screws (3).



6. Replacing the power supply unit and AC cord

Install the in the power supply unit and AC cord in the reverse order of removing.

Before installing, make sure that each connector is connected securely.

* When connecting the AC cord to the power supply unit in assembly, tighten with the torque of 3 kg/cm \pm 1 kg/cm.

7. Removing the LCD unit

- 1) Remove the LCD unit ①.
 - a) Remove the three Screws 2.



- 2) Remove the LCD rear cabinet (3).
 - a) Remove the two Screws (4).
 - b) Remove the pawls (a) to (1) of the LCD rear cabinet (3) in that order.



Caution:

Please do not place the LCD unit on hard surfaces, Please take special care not to place the LCD unit on any surface that may cause damage to the unit.



- 3) Remove the Inverter PWB (5).
 - a) Remove the Inverter cable 6.
 - b) Remove the CCFT cable \bigcirc .
 - c) Remove the two screws (8).
 - d) Remove the Inverter cover $(\underline{9})$



- 4) Remove the Touch panel PWB unit 10.
 - a) Remove the LCD cable(40P) 1 .
 - b) Remove the LCD cable(30P) 12.
 - c) Remove the Inverter cable (\mathfrak{B})
 - d) Remove the two Screws 1 and the two Earth wire 5.





- 5) Remove the LCD 1.
 - a) Remove the five Screws (\car{B}) .
 - b) Remove the LCD plate $\textcircled{1}{9}.$
 - c) Remove the LCD PWB unit O.



8. Replacing the LCD unit

Install the LCD unit in the reverse order of removing. Before installing, make sure that each cables are connected securely.

9. PS-RAM DISK: UP-P02MB

Make sure to save data before installing this option.

- 1) Remove the Rear display filter.
- 2) Install the option RAM disk 1 to the Option ROM/RAM connector CN15 2 on the Main PWB.
 - a) Insert the RAM disk aslant into the option ROM/RAM connector .
 - b) Push the RAM disk until the RAM disk is locked by the arms of option ROM/RAM connector.
 - * It is possible to install one UP-P02MB.
 - * Be careful of the direction of RAM disk to be installed. Install the RAM disk with the notch part of the PWB (Figure A) come right. Installing the RAM disk in the wrong direction may damage the connector part or make the machine out of order.



Be careful of the direction of ROM disk to be installed. Install the ROM disk with the notch part of the PWB (Figure A) come right. Installing the ROM disk in the wrong direction may damage the connector part or make the machine out of order.



- 3) Remove the option ROM disk.
 - a) Open the arms of option ROM/RAM connector right and left.
 - b) The ROM disk will be lifted automatically.



11. Cautions for UP-F04RB and UP-P02MB

Caution 1

Back up all data in the standard RAM disk (PS-RAM) before installing the UP-F04RB/UP-P02MB.

Caution 2

Do not insert the UP-F04RB/UP-P02MB upside down into the connector on the UP-5300 main PWB.

If you try to insert the UP-F04RB/UP-P02MB upside down, the UP-F04RB/UP-P02MB can only be inserted halfway. The RAM disk on the UP-5300 may be broken.



- 3) Removing the option RAM disk.
 - a) Open the arms of option ROM/RAM connector right and left.
 - b) The RAM disk will be lifted automatically.



10. F-ROM DISK: UP-F04RB

Make sure to save data before installing this option.

- 1) Remove the Rear display filter.
- 2) Install the option ROM disk 1 to the Option ROM/RAM connector CN15 2 on the Main PWB.
 - a) Insert the ROM disk at a slant into the option ROM/RAM connector.
 - b) Push the ROM disk until the ROM disk is locked by the arms of option ROM/RAM connector.
 - * It is possible to install one UP-F04RB.



Always insert the UP-F04RB/UP-P02MB with its upper side directed upwards (The upper side of UP-F04RB/UP-P02MB is the same side as the notch of the connector part).



Caution 3

Install and remove the UP-F04RB/UP-P02MB as follows: Handling the UP-F04RB/UP-P02MB forcibly may break the connector lever.

Installing UP-F04RB/UP-P02MB

1) Insert the terminal side of UP-F04RB/UP-P02MB into the connector with the parts face upwards.



Push the center part of UP-F04RB/UP-P02MB's PWB onto the upper slot at an angle of 30 to 40 degrees or onto the lower slot at an angle of 45 degrees against the main PWB to insert until it hits the back of the connector.



2) Grab the UP-F04RB/UP-P02MB's PWB on the center part to push down by sliding on the arms of the connector's both sides using the PWB's terminal side as an axis until the arms click.

If the arms are too hard to push the UP-F04RB/UP-P02MB down smoothly, push the UP-F04RB/UP-P02MB down from above with opening the arms of the both sides of the connector right and left using your fingers.



Removing UP-F04RB/UP-P02MB

1) Open the arms of connector's both sides using your fingers.



2) Check that the arms of the both sides are off and the UP-F04RB/UP-P02MB stands at an angle of 30 to 40 degrees on the upper slot against the main PWB or at an angle of 45 degrees on the lower slot against the main PWB.



For the lower slot, the UP-F04RB/UP-P02MB may be caught in the arms of the upper slot and stopped on the way to stand up. Check that the UP-F04RB/UP-P02MB stands up to about an angle of 45 degrees by further opening the both arms of the upper slot right and left.

3) Pull the UP-F04RB/UP-P02MB out of the connector along the inclination with which the UP-F04RB/UP-P02MB stood up.



Caution 4)

Do not insert any general-purpose RAM board (additional DIMM module) in the connector.

The connector has the signal assignment designed only for the UP- $5300. \label{eq:signal}$

If you erroneously insert a general-purpose RAM board into the connector, the UP-5300 and general-purpose RAM board may be damaged.

12. D-RAM disk: S.O. DIMM (Locally supplied)

[Outline] UP-5300 has a socket as Small Outline DIMM.

It is necessary to satisfy with S.O.DIMM memory specification as follows.

[Specification]

	144pin S.O.DIMM			
	8 Mbytes	16 Mbytes	32 Mbytes	
TYPE		EDO type		
ACCESS TIME	60 nsec. (less than)			
POWER	3.3 V			
REFRESH CYCLE	1024/16 msec.	2048/32 msec.	4096/64 msec.	
REFRESH TYPE	CBR			
POWER CONSUMPTION	700 mA (less than)			
OTHER	4 chip \times 16 Mbits (1 Mwords \times 16 bits)	8 chip × 16 Mbits (2 Mwords × 8 bits)	4 chip \times 64 Mbits (4 Mwords \times 16 bits)	

Make sure to save data before installing this option.

- 1) Remove the top cabinet.
- 2) Remove the three screws ①.
- 3) Remove the shield plate 4.
- 4) Remove the VGA PWB (5).
- 5) Install the option D-RAM disk 2 to the D-RAM connector: CN13 3 on the CPU PWB.
 - a) Insert a D-RAM disk at a slant into the D-RAM connector.
 - b) Push the D-RAM disk until the D-RAM disk is correctly locked by the arms of D-RAM connector.
- 6) Connect the VGA PWB (5).
- 7) Fix the shield plate (4) with three screws (1).





- 8) Remove the option D-RAM disk.
 - a) Open the arms of D-RAM connector right and left.
 - b) The D-RAM disk will be lifted automatically.



13. MCR UNIT: UP-E12MR2

- 1) Fix the MCR ANGLE ① to the lower cabinet with two screws ②.
- 2) Connect the MCR cable ③ to the MCR connector with the cable holder ⑥, and tighter the screw ⑦ on the back of lower cabinet.
- 3) Install the ferrite Core (4) to the MCR cable and GND wire (5).



4) Fix the earth wire (5) from the UP-E12MR2 with the screw.

14. Adjusting the IRQ10/11 on the ISA PWB.

Adjust the IRQ10 and IRQ11 using the switches: S1 and S2 on the ISA PWB if an option equipment is connected to the ISA slot of the ISA PWB.



 15. RS232 & CENTRO I/F: ER-A8RS



- * Adjust the IRQ10 and IRQ11.
 - (See the "13. Adjusting the IRQ10/11 on the ISA PWB.")
- 1) Remove the REAR COVER.
- 2) Remove the screw 1 from the ISA BUS SHASSIS.
- 3) Insert the I/F PWB (2) to the ISA BUS CONNECTOR.
- 4) Fix the I/F BRACKET to the ISA BUS SHASSIS with screw 1.
- * Only one ER-A8RS can be installed.
- 5) Connect the RS232 3 and CENTRONICS 4 cables to the I/F PWB.



 If an I/F (locally supplied half-size PC card) other than the ER-A8RS is connected to the ISA bus connector, it may be required to remove reinforcement angle (5) when inserting the I/F. In this case, remove reinforcement angle (5), insert the I/F, then install reinforcement angle (5).





* Align threaded holes completely before securing the I/F PWB with screws.



16. REAR DISPLAY UP-I20DP

1) Remove the Display filter 1



2) Remove the Rear cover angle (2) from the Display filter (1)a) Remove the two Screws (3)



- 3) Connect the display cable (4) to the connector: CN: 1 on the Main PWB
- 4) Install the Display unit (5) to the cabinet
 - a) Align the positioning boss (A) of the bottom cabinet with the angle hole (A) in the display unit.



17. POLE DISPLAY: UP-P20DP

- 1) Install the core 6 to the display cable 1.
- 2) Install the core \bigcirc to the display earth cable 4.
- 3) Connect the Display cable 1 to the remote display connector on the back of the set.
- 4) Fix the display cable 1 with the cable holder 2, and tighten the screw 3 on the back of bottom cabinet.
- 5) Fix the display earth cable 4 to the main chassis with the screw (§).



* Cable holder (2)

Use the following type of cable holder supplied with the UP-P20DP.

"3N" (large type)



* How to Extend Display Pole

The pole can be extended by installing the attached pole to the standard pole.

COMPONENT LIST:

No.	NAME	USE	Q'ty
7, 1	Pole cabinet	Pole extension	2
(12)	Screw (M3 \times 4)	Pole connection	4
(13)	Screw (M4 × 16) Securing the UP-P20DP to the wooden table		4
(14)	Screw (M4 × 20) Securing the UP-P20I the metal table		4
(15)	Nut Securing the UP-P20DP to the metal table		4
(16)	Display cable (S)	This display cable (S)	1
Ŵ	Earth wire (S)	should be used instead of the standard cable and earth wire if the UP-20DP's standard pole is removed to lower the height of the UP-20DP.	1

- 1) Remove the five screws (1).
- 2) Remove the Base angle 2.
- 3) Remove the PWB unit 3 from the Base cabinet 4.
- 4) Remove the display cable (5) from the PWB unit (3).

- 5) Remove the two screws (6).
- 6) Remove the Base cabinet 4 from the pole cabinet 7.



- 7) Pull the Ratchet (9) attached to the pole cabinet $\overline{7}$ out of the Display unit (8) by turning it as shown in Figure A.
- 8) Remove the two screws 1.
- 9) Remove the pole cabinet $\overline{7}$ from the Ratchet 9.







10) Install the attached pole cabinet 1 to the pole cabinet 7 to fix it with the screw 2.



- 11) Install the pole cabinet 1 in the opposite order of the disassembly.
- 12) Fastening onthe table:

Secure the Base cabinet ② using the screw.

No.	NAME	USE	Q'ty
13	Screw (M4 $ imes$ 16)	Securing the UP-P20DP to the wooden table	4
14)	Screw (M4 \times 20)	Securing the UP-P20DP to the metal table	4
(15)	Nut	Securing the UP-P20DP to the metal table	4



* Lowering the height of the UP-P20DP

Remove the standard Pole and attach the Base cabinet 4 to the Ratch 9. At this time, replace the standard Display cable and the Earth wire with the S type cable 6 and wire 7.



18. DRAWER UNIT: ER-03DW/04DW/05DW

- 1) Connect the drawer cable 1 to the drawer connector 2.
- 2) Fix the earth wire (3) to the main chassis from drawer box unit with the screw (4).



- 3) Install the ferrite Core (5) to the drawer cable.
- 4) Fix the drawer cable (1) with the cable holder (6), and tighten the screw (7) on the back of lower cabinet (A) or (B).



19. COM1, COM2, COM3/5, and COM4/6 Connector

- 1) COM1 & COM2
 - D-SUB 9pin Connector
 - CI signal of COM1 or COM2 and +5V power supply can be switched in order to supply +5V power.



Connector Specifications

D-SUB9

Pin No.	Signal	Function	I/O
1	CD	Data Carrier Detect	Ι
2	RD	Receive Data	-
3	SD	Send Data	0
4	ER	Data Terminal Ready	0
5	SG	Signal Ground	
6	DR	Data set Ready	Ι
7	RS	Request to Send	0
8	CS	Clear to Send	-
9	CI/+5V	Ring Indicate/+5V	

Main PWB







2) COM3/5, COM4/6

- Two channels of COM port with an RJ45 connector are equipped.
- For 2 channels of RJ45 COM port, COM3 & COM4 or an I/O address (COM5 & COM6) can be selected.
- Two CABLE HOLDER (1) and SCREW (M3 \times 8) (2) are contained in the package.



Connector Specifications

RJ	43
-	

Pin No.	Signal	Function	
1	RS	Request to Send	0
2	ER	Data terminal Ready	0
3	SD	Send Data	0
4	SG	Signal Ground	—
5	SG	Signal Ground	—
6	RD	Receive Data	I
7	DR	Data set Ready	
8	CS	Clear to Send	

20. BUILT-IN PRINTER: UP-T80BP

1) Remove the BOTTOM PLATE 2.

- a) Remove the three SCREWs 1.
- b) Remove the BOTTOM PLATE 2.
- c) Remove the SCREW (3), CABLE CLAMP (4) and POWER SUPPLY CABLE (5).



Fig. 1

- 2) Install the PS+CONTROL PWB 6.
- a) Fix the PS+CONTROL PWB (6) with three SCREWs (7) (3), (3)
 * SCREW (3): Use the screw which was fixing the CLAMP (4)
- 3) Connect the POWER SUPPLY CABLE (5) to the PS+CONTROL PWB (6). (No. CN1)
- 4) Connect the I/F CABLE (8) of the PS+CONTROL PWB (6) to the UP-5300 MAIN PWB (No.CN109)



Fig. 2



- 5) Remove the PRINTER LID (9).
- a) Remove the screw 1 .
- b) Remove the PRINTER LID 9.
- 6) Install the PAPER ROLLERs (4ea.) (1).





- 7) Install the SWITCH UNIT 12.
- a) Fix the SWITCH UNIT 0 on the cabinet pawl A.
- b) Pass the SWITCH UNIT CABLE (3) through the hole (B).



Fig. 4

8) Install the AUTO CUTTER RELAY PWB UNIT (4).

- a) Install the AUTO CUTTER RELAY PWB UNIT $(\!\!\!4\!)$ with SCREW (§).
- b) Pass the AUTO CUTTER RELAY PWB CABLE 16 through the hole (C).





- 9) Install the PAPER GUIDE ① to the PRINTER UNIT ⑧.
- 10) Install the HEAD CABLE (19) to the PRINTER UNIT (18).



Fig. 6



11) Install the PRINTER UNIT (18).

- a) Connect the AUTO CUTTER CABLE 0 to the AUTO CUTTER RELAY PWB ().
- b) Pass the HEAD CABLE 1 through the hole (C).
- c) Pass the MOTOR CABLE 2 and SENSOR CABLE 2 through the hole (D).
- d) Open the PRINTER UNIT $(\ensuremath{\$})$.
- e) Fix the PRINTER UNIT $\textcircled{1}{8}$ with four SCREWs $\textcircled{2}{3}$
- * Fix the SCREWs 3 in the order of 3-(a) to 3-(d).
- f) Fix the two EARTH WIREs (29) with a SCREW (25).



Fig. 7

12) Wiring for each cables as shown below



- 13) Connect the Printer cables to the CONTROL PWB.
- a) SWITCH UNIT CABLE 3 : Connect to the CN7.
- b) HEAD CABLE (19): Connect to the CN5.

Attach the FERRITE CORE (L size) 0 and CABLE CLAMP (4).

Fix the CABLE CLAMP ④ with a SCREW 28.

- c) AUTO CUTTER RELAY PWB CABLE (6): Connect to the CN4.
- d) MOTOR CABLE (21): Connect to the CN2.
- e) SENSOR CABLE 22: Connect to the CN6



Fig. 8



14) Wiring for each cables as shown below

- a) Attach the FERRITE CORE (S size) (2) to the I/F CABLE (8).
- b) Fix the I/F CABLE $(\ensuremath{\$})$ and EARTH WIRE $(\ensuremath{\$})$ with the CABLE BAND $(\ensuremath{\$}).$
- c) Set the switch: SW2 to the "MRS" position.



15) Install the BOTTOM PLATE 2.

Fig. 9

16) Install the PRINTER COVER 29.









1. LIST FOR SCREWs

	No.	PARTS CODE	M [mm]	L [mm]
E	(15) (30)	XEBSD30P08000	3	8
	28			
	23-a	XEBSD26P06000	2.6	6
	(23)-(b)			
	(23)-(C)	XEBSD26P08000	2.6	8
M	(23)-(d)			
	\bigcirc	XHBSD30P06000	3	8
	25			
IVI				

2. INSTALLATION OF PAPER NEAR END SENSOR [PARTS LIST]

No.	PARTS NAME	PARTS CODE	NOTE
1	PAPER NEAR END SENSOR	DUNTK3819BHZZ	SENSOR UNIT, FIXING SCREW
2	NEAR END SENSOR CONNECTOR	QCNCM6865RC0B	2 pin connector

1. Remove the BOTTOM PLATE .

- 2. Remove the PS+CONTROL PWB.
- 3. Solder the CONNECTOR 1 to the PS+CONTROL PWB (No. CN1)
- 4. Install the NEAR END SENSOR UNIT 2 to the CABINET , and fix it with the fixing SCREW 3.



21. HDD (UNIT: HZ-F21HD) & HDD KIT: DKIT-8671RCZZ

- * HDD KIT (DKIT-8671RCZZ) is an option for KB. (Standard for TQ, TS)
- [Outline] UP-5300 can connect to a specific Hard Disk Drive as local purchase.

It is necessary to provide the following 2.5 inch Hard Disk Drive specification as follows.

[Specification]

	2.5 inch type Hard Disk Drive
MAKER	FUJITSU
MODEL	MHA2021AT
PARTS No.	1) Part No.: CA01640-B040 (For local purchase)
REVISION NO.	Rev. No.: A4
CAPACITY	2.16 Gbytes
INTERFACE	ATA-3

* The hard disk drive is a part which is supplied locally.

COMPONENT LIST:

No.	NAME	Q'ty
1	HDD COVER A	1
2	HDD COVER B	1
3	ANGLE	2
4	HDD CUSHION	4
(5)	SPACER	4
6	SCREW A (M3 \times 4)	4
\bigcirc	SCREW C (M3 × 8)	4
8	SCREW B (M3 × 14)	4
9	WASHIER	4
(10)	HDD CABLE	1
1	FERRITE CORE	2
(12)	HOLDER	2

- 1) Install the HDD COVER A (1) to the HDD unit with the SCREW A $(M3 \times 4)$ (6).
 - * Install the HDD unit in the correct direction so that the HDD unit firmly fits onthe HDD COVER A ①.



Fig. 12



- 2) Install the HDD CUSHION (4) to the ANGLE (3).
- 3) Insert the SPACER 5 to the HDD CUSHION 4.
- 4) Install the HDD COVER B (2) and the ANGLE (3) to the HDD COVER A (1) with the WASHIER (9) and SCREW (B) (M3 \times 14) (8).
- 5) Place the ferrite core $(1\!\!\!)$ in the center of the HDD cable $(1\!\!\!)$ and secure with the holder $(2\!\!\!).$
- 6) Connect the HDD CABLE 10 to the HDD unit.
 - * Connect the HDD CABLE ⁽¹⁾/₍₁₎ with the 4 pins on the left side of the HDD unit open as shown in Figure A.



- 7) Remove the Bottom plate (3).
- 8) Connect the HDD CABLE 10 to the HDD connector: CN108 on the MAIN PWB.
- 9) Install the HDD unit to the Bottom cabinet. With the SCREW A $(M3\times8)\ \widehat{(2)}.$



22. FDD UNIT: UP-H14FD

COMPONENT LIST:

No.	NAME	Q'ty
1	FDD UNIT	1
2	FDD ANGLE-A	2
3	FDD ANGLE-B	1
4	SCREW	4
5	SCREW	4
6	EARTH WIRE	1
$\overline{\mathcal{O}}$	FDD CABLE	1
8	FDD COVER-A	1
9	FDD COVER-B	1
(10)	FERRITE CORE	1

1) Remove to the Printer lid 1.

- a) Remove the screw 2.
- b) Remove the printer lid 1.
- 2) Remove the bottom plate 4.
 - a) Remove the three screws (5).
 - b) Remove the bottom plate 4.
- 3) Remove the FDD cover $\overline{7}$.



- 7) Install the FDD UNIT 1 to the UP-5300.
 - a) Install the FDD UNIT 1 and FDD ANGLE-B 4 to the bottom cabinet with the four screws 5 .
 - b) Connect the FDD CABLE 3 to the Main PWB.
 - c) Pass the EARTH WIRE 1 through the hole A.
 - d) Install the EARTH WIRE 1 with the screw 6.





- 4) Install the FDD ANGLE-A (8).
 - a) Install the two FDD ANGLE-A (8) and EARTH WIRE (10) to the FDD UNIT (11) with the four screws (12).
- 5) Connect the FDD CABLE (1) to the FDD UNIT (1).
- 6) Install the ferrite core 1 onto the FDD cable 3.





8) Install the FDD COVER (1) to the FDD FRONT COVER (1).



9) Install the FDD COVER UNIT 1, 1 to the bottom cabinet.



23. KEY PAD: UP-C30PK

- 1) Remove the upper cabinet.
- 2) Remove the keyboard lid ① from the upper cabinet.



Keyboard ① is tightly engaged and hard to be removed. When removing it, use nippers to cut off four pawls A from the back of the upper cabinet.



 Attach the keyboard cover 2 and keyboard unit 3 to theupper cabinet, and fix them with four screws 4.





★ When attaching keyboard cover ②, engage pawls C and D securely with the upper cabinet.



4) Connect the cable of the keyboard unit ③ to the main PWB connector CN10.



5) Attach the earth spring (5) to the lower cabinet with thescrew (6).







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> SHARP CORPORATION Information Systems Group Quality & Reliability Control Center Yamatokoriyama, Nara 639-1186, Japan

1999 July Printed in Japan T