SHARP INSTALLATION MANUAL

ELECTRONIC CASH REGISTER

MODEL ER-A440

SRV Key : LKGIM7113RCZZ
PRINTER : DP730
(For "U" & "A" version)

CONTENTS

Parts marked with "⚠" 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.

SHARP CORPORATION

CHAPTER 1. GENERAL

This manual describes the ER-A440 disassembly procedures and the option attachment procedures. For assembly procedures, reverse the disassembly procedures. For attachment of options which do not require special descriptions, descriptions are omitted.

Note for operations

- Before operation, ground the operator's body and perform other necessary measure against static electricity.
- During operations, disconnect the AC cord from the outlet.
- After completion of operations, connect the connectors.
- After completion of operations, be sure to perform the master reset.

1. SRV. reset (Program Loop Reset)

Used to return the machine back to its operational state after a lock-up has occurred.

Procedure

- Method 1
    1) Unplug the AC cord from the wall outlet.
    2) Set the mode switch to (SRV′) position.
    3) Plug in the AC cord to the wall outlet.
    4) Turn to (SRV) position from (SRV′) position.
- Method 2
    1) Set the mode switch to PGM2 position.
    2) Turn off the AC switch.
    3) While holding down JOURNAL FEED key and RECEIPT FEED key, Turn on the AC switch.

Note: When disassembling and reassembling always power up using method 1 only. Method 2 will not reset the CKDC8.

Note: SRV programming job#926-B must be set to "4" to allow PGM program loop reset.

2. Master reset (All memory clear)

There are two possible methods to perform a master reset.

- MRS-1

Used to clear all memory contents and return machine back to its initial settings and return keyboard back to default keyboard layout.

Procedure

1) Unplug the AC cord from the wall outlet.
2) Set the MODE switch to the (SRV′) position.
3) Plug in the AC cord to the wall outlet.
4) While holding down JOURNAL FEED key, turn to (SRV) position from (SRV′) position.

- MRS-2
  Used to clear all memory and keyboard contents.
  This reset returns all programming back to defaults. The keyboard must be entered by hand.
  This reset is used if an application needs different keyboard layout other than that supplied by a normal MRS-1.

Procedure

1) Unplug the AC cord from the wall outlet.
2) Set the MODE switch to the (SRV′) position.
3) Plug in the AC cord to the wall outlet.
4) While holding down JOURNAL FEED key and RECEIPT FEED key, turn to (SRV) position from (SRV′) position.
5) Key position assignment:

∗ After the execution of MRS-2, only the RECEIPT FEED and JOURNAL FEED keys can remain effective on key assignment. Any key can be assigned on any key position on the main keyboard.

[key setup procedure]

MRS-2 executed → $\boxed{0}$ → Key position set → Free key → Free key setup complete.
(*2)
$\boxed{0}$ (*1)
Disable
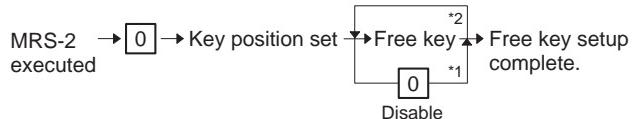
NOTES:

∗1: When the 0 key is pressed, the key of the key number on display is disabled.

∗2: Push the key on the position to be assigned. With this, the key of the key number on display is assigned to that key position.

Key number	Key name	Key number	Key name
1	Numeric key "0"	10	Numeric key "9"
2	Numeric key "1"	11	Numeric key "00"
3	Numeric key "2"	12	Numeric key "000"
4	Numeric key "3"	13	Decimal point key
5	Numeric key "4"	14	CL key
6	Numeric key "5"	15	@/FOR key
7	Numeric key "6"	16	SBTL key
8	Numeric key "7"	17	CA/AT key
9	Numeric key "8"		

CHAPTER 2. LIST OF OPTIONS

1. Options

No.	NAME	MODEL	DESCRIPTION
1	EXPANSION RAM CHIP	ER-03RA	512K bytes RAM CHIP
2	REMOTE DRAWER	ER-04DW	
3	PRESETS LOADER	ER-01FD/02FD	FD unit
4	KEY TOP KIT	ER-11KT7	1 × 1 KYE TOP UNIT
		ER-12KT7	1 × 2 KYE TOP UNIT
		ER-22KT7	2 × 2 KYE TOP UNIT
		ER-11DK7G	1 × 1 DUMMY KYE KIT
		ER-51DK7G	5 × 1 DUMMY KYE KIT
5	COIN CASE	ER-55CC2	for "U" version
6	COIN CASE	ER-48CC2	for "A" version

2. Service options

No.	NAME	PARTS CODE	PRICE RANK	DESCRIPTION
1	SERVICE KEY	LKGiM7113RCZZ	AF	
2	MODE KEY GRIP COVER	LKGiM7126RCZZ	AL	OP key only
3	DRIP-PROOF KEYBOARD COVER	GCŌVH7126BHZZ	BE	Include the switch cover
4	JOURNAL NEAR END SENSOR UNIT	DUNTK3677BH03	BB	Q'ty: 1
	Screw (Sensor unit – Top cabinet)	XEBSD30P08000	AA	Q'ty: 1
	Screw (Sensor unit – Earth wire – Top cabinet)	XHBSD30P04000	AA	Q'ty: 1
	Earth wire	QCNW-7895BHZZ	AF	Q'ty: 1
	Connector (2pin)	QCNCM6865RC0B	AA	Q'ty: 1
5	TEXT PRESET KEYBOARD COVER	GCŌVB7153BHZZ	BH	

3. Service tools

No.	NAME	PARTS CODE	PRICE RANK	DESCRIPTION
1	RS-232 LOOP BACK CONNECTOR	UKŌG-6705RCZZ	BU	
2	KEY TOP REMOVER	UKŌG-6634RCZZ	AX	
3	2 × 2 KEY TOP INSTALLING JIG	UKŌG-6725BHZZ	BB	

4. Supplies

| No.	NAME	PARTS CODE	PRICE RANK	DESCRIPTION
1	ROLL PAPER	DPAPR1006CSZZ	AR	5 roll/pack
2	INK LIBBON	PRBN-6644RCZZ	AZ	

CHAPTER 3. REMOVING THE TOP CABINET

1) Remove the printer cover ①.
2) Remove the 4 screws ②.

3) Separate the top cabinet and the bottom cabinet.

   Note: Transformer cable ⑤ and the drawer cable ⑥ on the bottom cabinet are connected to the main PWB on the top cabinet. Be careful when separating them from the bottom cabinet.

4) Remove transformer cable ⑤ and drawer cable ⑥ from the main PWB.

CHAPTER 4. REMOVING THE PRINTER UNIT

1) Remove the top cabinet.
2) Remove the two screws ②.
3) Remove the printer cable ①.
4) Remove the printer unit ③ from the top cabinet.
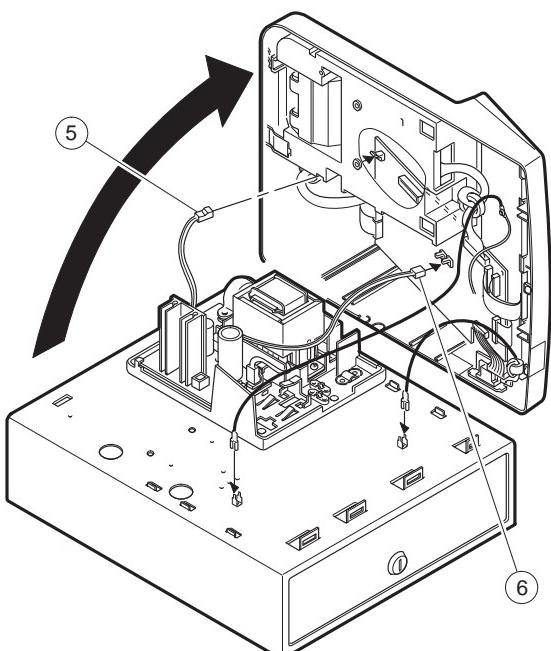
CHAPTER 5. REMOVING THE MAIN PWB

1) Remove the top cabinet.

2) Remove the printer unit.

3) Remove the following connector cables from the main PWB.

Dry battery cable ①

Pop up display cable ②

Note: The pop-up cable is fixed with the holder not to make contact with the heat radiating plate on the main PWB. Be careful of it when installing.

Mode switch cable ③

Keyboard cable ④

Front display cables ⑤

4) Remove the RS232 cable ⑥ from the RS232 PWB ⑪.

5) Remove the screw ⑦ and grounding wire ⑧.

6) Remove the four screws ⑨ and main PWB ⑫.

7) Remove the two screws ⑩ and RS232 PWB ⑪.

CHAPTER 6. REMOTE DRAWER: ER-04DW

CAUTION:
The drawer unit should be securely fitted to the supporting platform to avoid instability when the drawer is open.

1. Outline

The ER-A440 allows connection of one remote drawer ER-04DW.
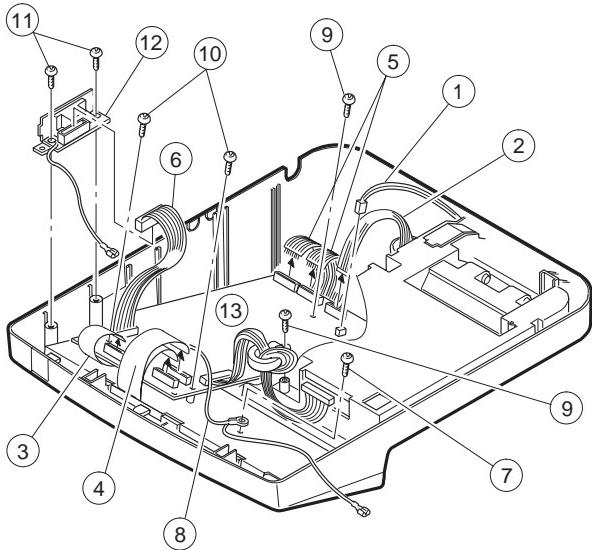
2. Installation procedure

1) Remove the top cabinet.

2) Connect the remote drawer cable ① to the drawer connector on the main PWB. (Location: CN7)

3) Use nippers to cut off drawer cable binding holder ② on the bottom cabinet, and bind drawer cable ① of the ER-04DW. Screw ③ used in this case is an accessory of the ER-04DW.
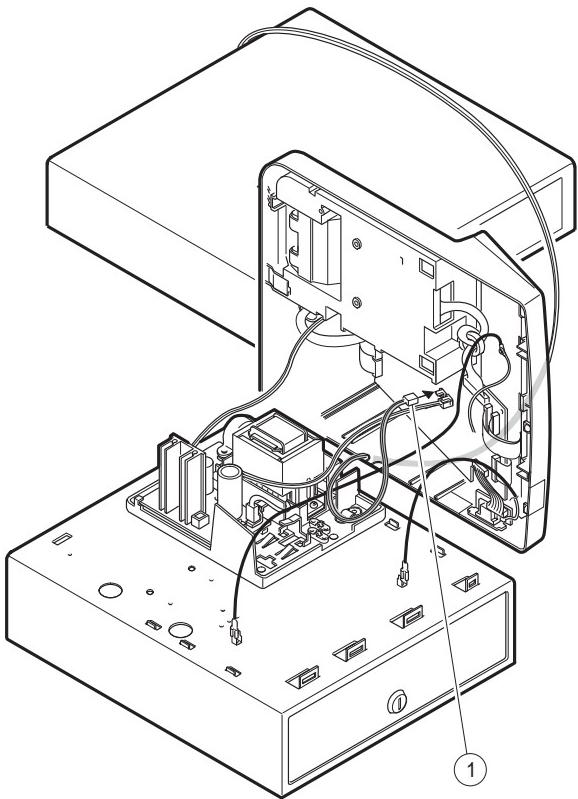
4) Use nippers to cot off the drawer cable split pin ④ of the top cabinet, and attach the top cabinet.

# CHAPTER 7. EXPANSION RAM CHIP (ER-03RA)

1. Outline

ER-03RA: 512KB SRAM chip

2. Installation procedure

Before working on the installation, turn off the power switch on the ECR and unplug the AC cord from the AC outlet.

Also save the memory contents before proceeding to the installation work.

1) Remove the top cabinet.
2) Install the ER-03RA to the IC socket on the Main PWB. (Location No. IC14)
3) Master reset the ECR.
4) Load the data in memory which had been saved.
5) Program reset the ECR.
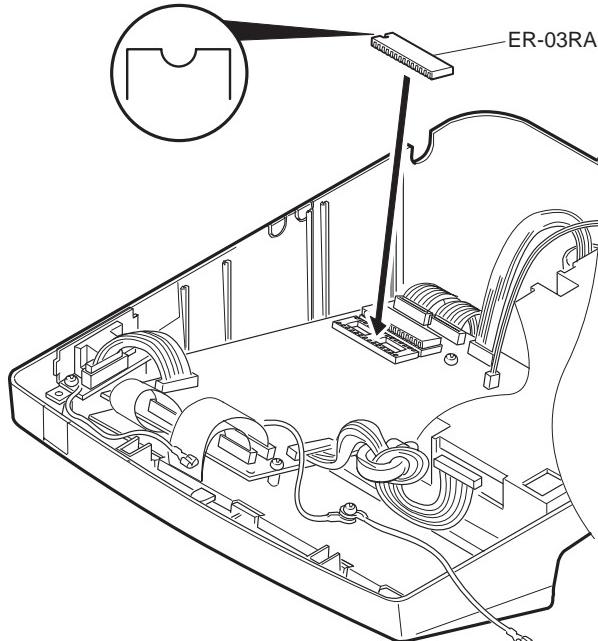
CHAPTER 8. JOURNAL NEAR END SENSOR (DUNTK3677BH03)

1. Parts list

To install the journal near end sensor, the following parts are reguired.

NO.	PARTS NAME	PARTS CODE	PRICE RANK	Q'ty
①	JOURNAL NEAR END SENSOR UNIT	DUNTK3677BH03	BB	1
②	Screw (Sensor unit-Top cabinet)	XEBSD30P08000	AA	1
③	Screw (Sensor unit-Earth wire-Top cabinet)	XHBSD30P04000	AA	1
④	Earth wire	QCNW−7895BHZZ	AF	1
⑤	Connector (2 pin)	QCNCM6865RC0B	AA	1

## 2. Installation procedure

1) Remove the Printer cover.
2) Remove the Top cabinet.
3) Remove the Printer unit.
4) Remove the Main PWB unit.
5) Install the Sensor unit ① to the Top cabinet with the Screw ②.
6) Install the Earth wire ④ to the Sensor unit ① with the Screw ③.
7) Fix the Earth wire ④ to the Top cabinet with the Screw.
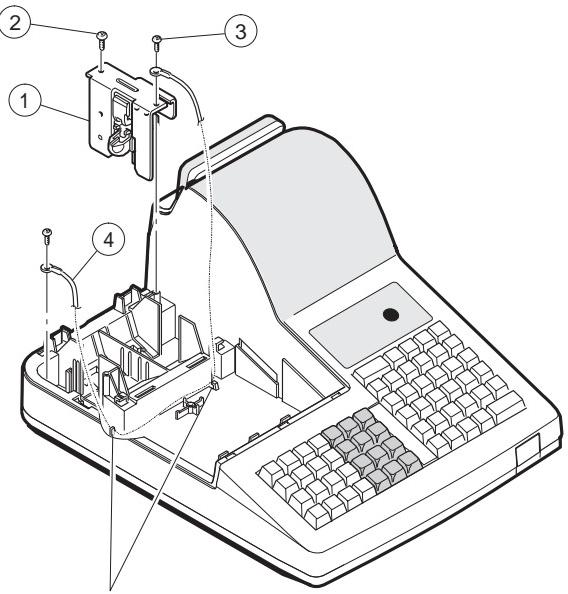
Through the earth wire into the thins.

8) Solder the Connector (2 pin) ⑤ to the Main PWB unit. (Location: CN8 NEJ)
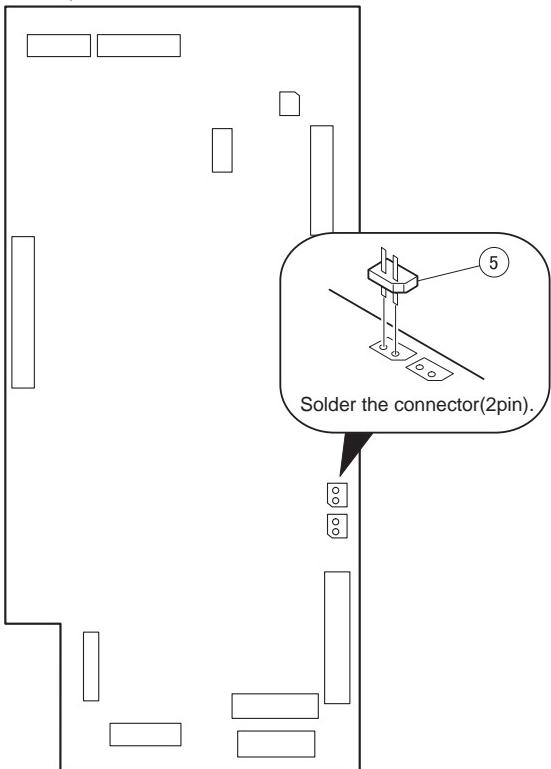
Solder the connector(2pin).
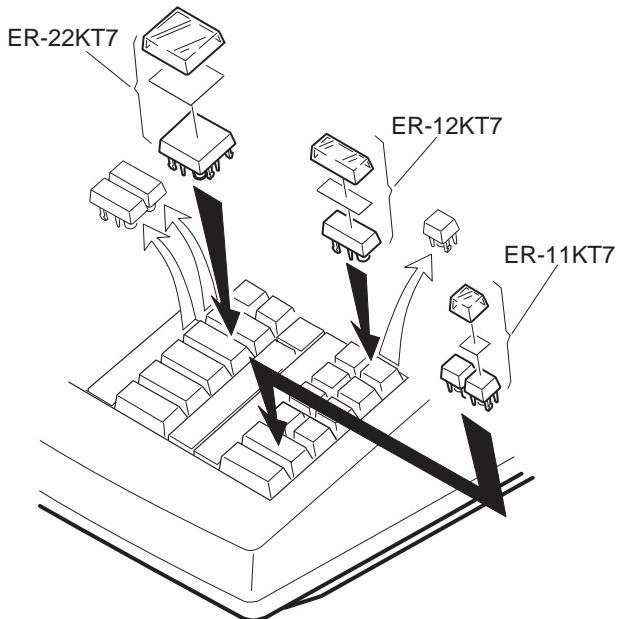
9) Connect the Sensor unit cable to the Connector (2 pin) to the Main PWB unit. (Location: CN8 NEJ)

CHAPTER 9. KEY TOP KIT

1. Outline

The ER-A440 employs the following key top (option) to allow additional installation of the key top and change in the key layout.

MODEL NAME	DESCRIPTION
ER-11KT7	1 × 1 Key top
ER-12KT7	1 × 2 Key top
ER-22KT7	2 × 2 Key top
ER-11DK7G	1 × 1 Dummy key
ER-51DK7G	5 × 1 Dummy key

2. Installation procedure

ER-22KT7   ER-12KT7   ER-11KT7
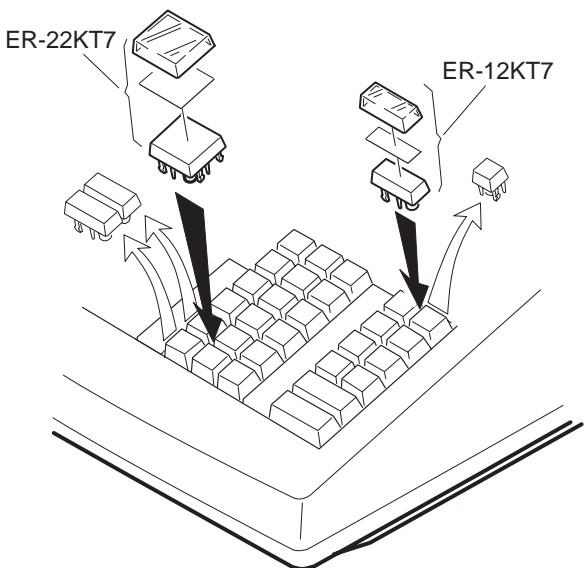
ER-22KT7   ER-12KT7

① **ER-11KT7**
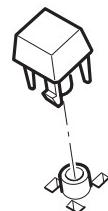
② **ER-12KT7, ER-22KT7**

1) Attach two spacers to the keyboard frame.

Yellow
White



Yellow
White
White
Yellow
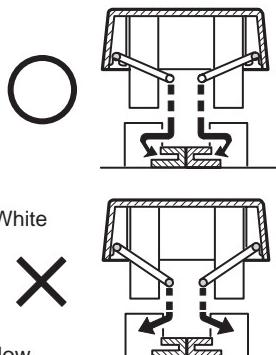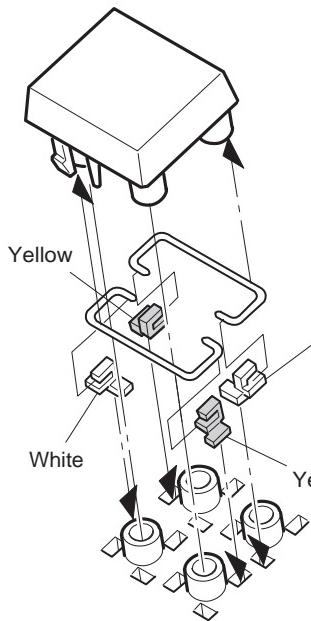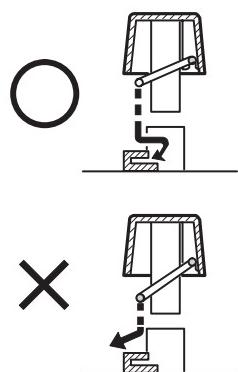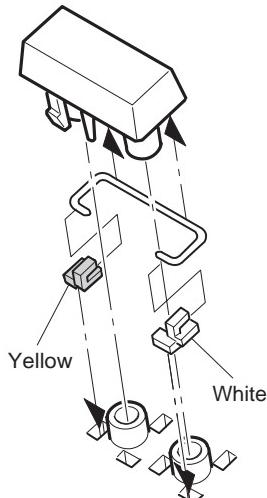
- Attach the yellow spacer to the left lower side, and the white spacer to the right lower side.

2) The key top of the ER-12KT7 and the ER-22KT7 includes the guide pin. Install the key top so that the guide pin is engaged with the spacer attached to the keyboard frame.

**(When using 2 × 2 key top installing jig (UKOG-6725BHZZ) for installation)**

1) Remove the key label and the key cap from the key top.

2) Attach the key top so that the guide arm is under the jig.

Jig
Key top
Guide arm
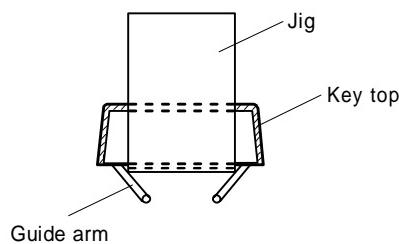
3) With the jig inserted in the key top, slowly press down the key top until the guide arm is brought into contact with the guide holder A.


Jig
Key top
Guide arm
Guide arm
A
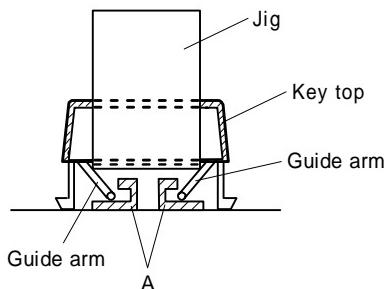
4) Remove the jig under the above condition 3), and press the key top.
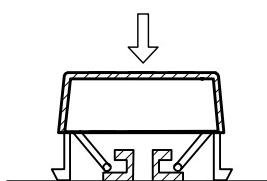
5) Check that the key top operates properly.

6) Install the key label and the key cap.

③ **ER-11DK7G, ER-51DK7G**

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