▼ ISHIDA

DP-3000

Service Manual

48729

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SOFTWARE SECTION

S1 Outline of Software

S2 Print Format Modification

S3 Display Modules

S4 Setting Mode

S5 Test Mode

1 | Introduction

1.1   MAIN COMPONENTS

WEIGH UNIT   DISPLAY UNIT   PRINTER
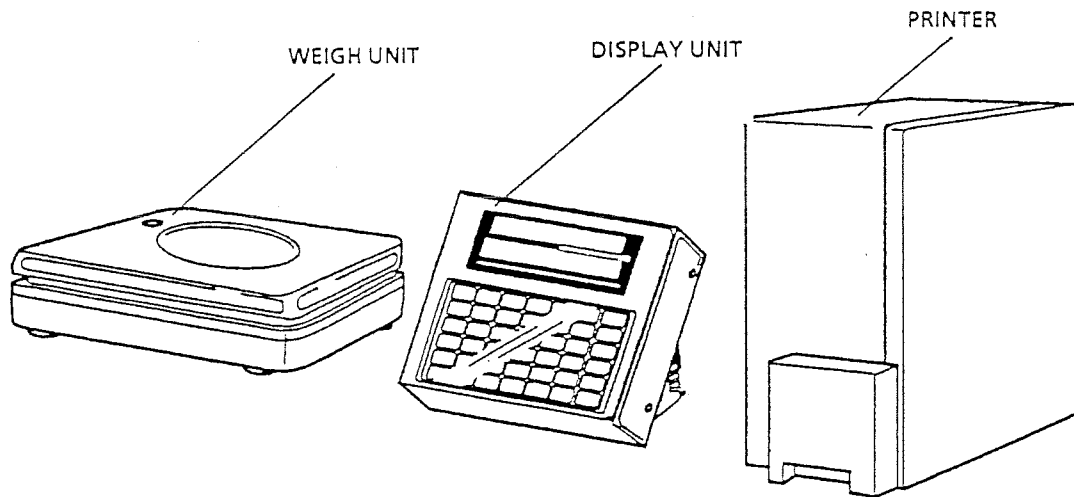
⚠ *NOTE:* An equipment stand (adjustable) is optional.

1.2 CHARACTERISTICS

■ **16-Bit microprocessor**
The DP-3000 scale is equipped with a 16-bit microprocessor unit (V-40) which enables processing of large quantities of data.

■ **Full dot display**
The DP-3000 is equipped with full dot display unit which can display easy-to-read text, numerals and a variety of symbols.

■ **CSIS system development function**
This function enables CSIS System development. A master board is needed for this function.

■ **E2 ROM**
The use of E2 ROM ensures that important data will not be lost.

■ **Resistance value and printing density settable via key entry**
The thermal head resistance value as well as printing density can be set by key entry.

■ **Peeling sensor sensitivity value display**
The sensitivity value of the peeling sensor is displayed. There is no longer any need to measure detection voltage. (The values 0 or 1 are displayed.)

1.3 MODE KEY FUNCTION

Enter the pass code (4 digits), then press □MODE to change modes. If □MODE is pressed without entering a passcode, then normal operation mode is returned. (See page S4-9 for procedure to change passwords.)

Pass Code	Mode
9000	Registration
8000	Totals
7000	Subtraction
6000	Setting
5000	Checking

2 Set Up

2.1 PARTS CHECK

Open the shipping carton and confirm the following:

1. No parts are missing.
2. No parts are damaged.

2.2 INSTALLATION SITE CHECK

Check that the installation site conforms to the following conditions:

1. Site is stable and level.
2. Scale will not be exposed to water or other liquids.
3. Scale will not be exposed to direct sunlight for long periods.
4. Scale will not be exposed to wind or strong vibration.
5. Installation site should be sufficiently spacious.
6. Power cord is not pinched between objects or pressed with force.
7. Power supply is connected to the circuit which has the breaker with the electricity leakage detection function.

2.3 ASSEMBLY

Assemble the components as follows:

1. Connect the weigh unit and printer with cable (15P).
2. Connect the display and printer with cable (37P).
3. Load the labels to the printer (refer to the operation manual for instructions on loading).
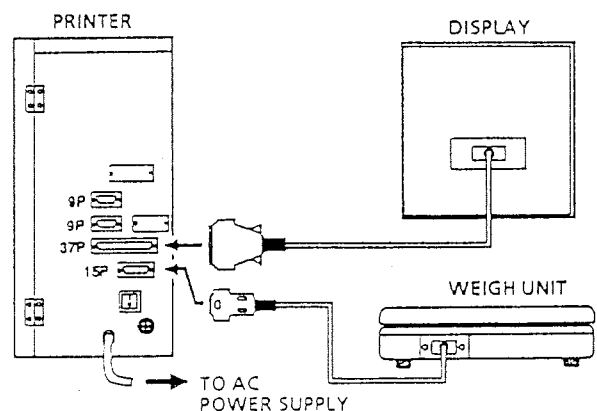
2.4   SET UP SEQUENCE

1. Perform RAM clear sequence.
Insert the power plug into an outlet. Referring to Chapter S5 (Test Mode 2: RAM Clear), initialize all the RAM data.

2. Set print format, label length and sales mode according to users specifications.
Service manual reference sections:
- Print format setting   : Chapter S5 (Test Mode 7: Label Format)
- Label length setting   : Chapter S4 (Setting Mode 1: Label Format)

3. Register date and time.
Referring to the operation manual, register the date and time.

4. Register PLU.
Referring to the operation manual, perform PLU data registration in Registration mode.

5. Perform print test.
Load a roll of labels or receipts, and confirm that printing is correct. Refer to Chapter S5 (Test Mode 3: Thermal Head).

6. Perform totals clear.
Refer to the operation manual.

7. Back up data.
Back up the registration data on a floppy disk. Refer to Chapter S5 (Test Mode 99: Data Transmission.)

3 | Parts Disassembly & Replacement

This chapter will explain the procedures for disassembling and replacing the main components. Please be careful not to drop or strongly impact fragile parts such as the display unit and circuit boards. Also, before disassembly, be sure to turn off the power switch and unplug the power cord.

3.1   PART NAMES

PRINTER

⑧   Right Side

④

⑧

Left Side

①

②

④

⑤

⑥

⑦

③

Part No.	Part Name
1	PWB: P-834
2	Sensor: AS: Peeling
3	Power Supply: Switching
4	Motor: AS: Stepping
5	Timing Belt: XL (260 x L037)
6	Thermal Head (LH3124I)
7	Photo Interrupter: Reflective (GP2A11)
8	Sensor Unit: Label

⚠ NOTES: • For harness information, refer to Chapter 4 (Connector Configuration).
• The PWB: P-834 software differs depending on the country. The board however is the same.

DISPLAY UNIT
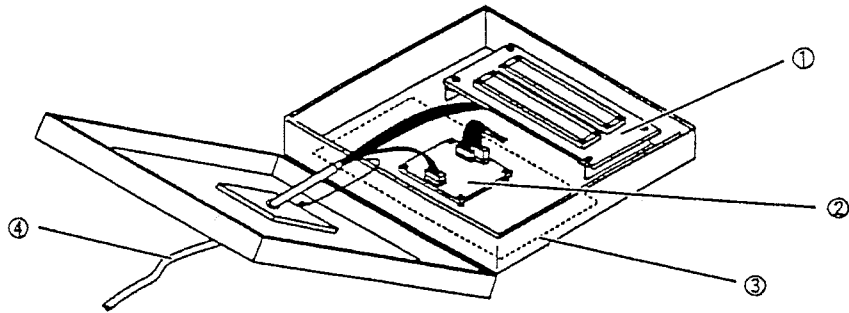
Part No.	Part Name
1	Display: Fluorescent: Full dot
2	PWB: 862
3	Sheet AS: Keyboard
4	Harness: C3: Console

WEIGH UNIT
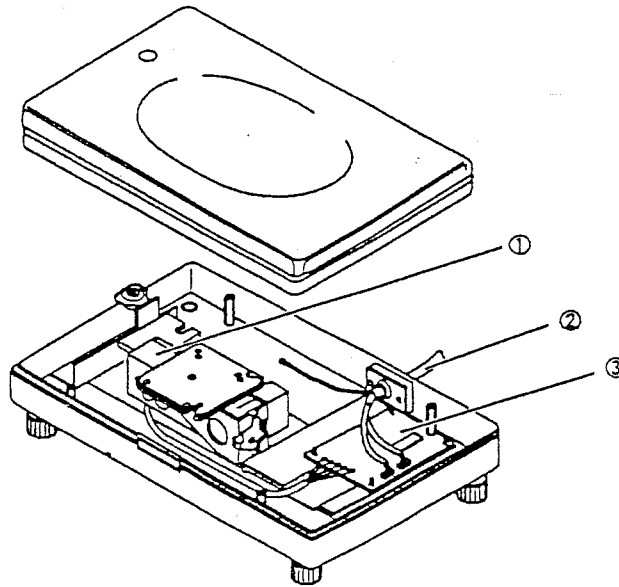
Part No.	Part Name
1	LC Unit: CLC-25N
2	Harness: C3: Scale 1
3	PWB: 830

⚠ *NOTE:* Only the main parts of each component are mentioned. For other parts, refer to the parts list for each country.

3.2   Replacement of Board Printer

1. Remove the printer cover.

1) Remove the 6 attachment screws from the printer side cover.
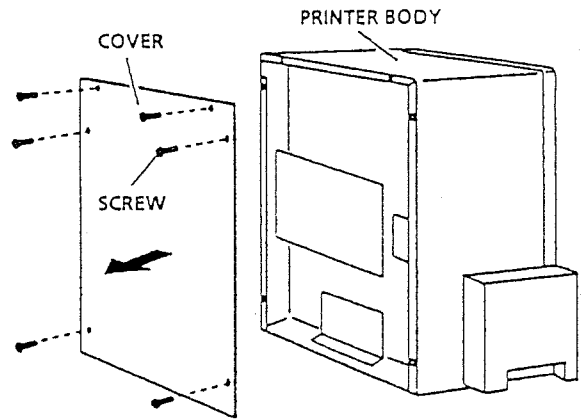
2. Remove the main board.

1) Remove the main board connectors 1~7.

2) Remove the rocking support which is attached to the main board in 6 places.
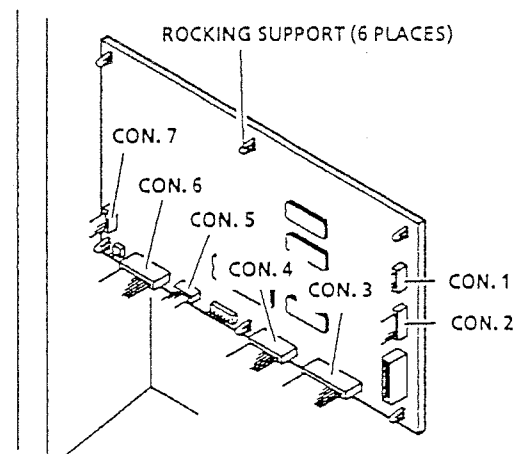
3. Remove the junction board.

1) Remove the junction board connectors 8~10.

2) Remove the rocking support which is attached to the junction board in 4 places.
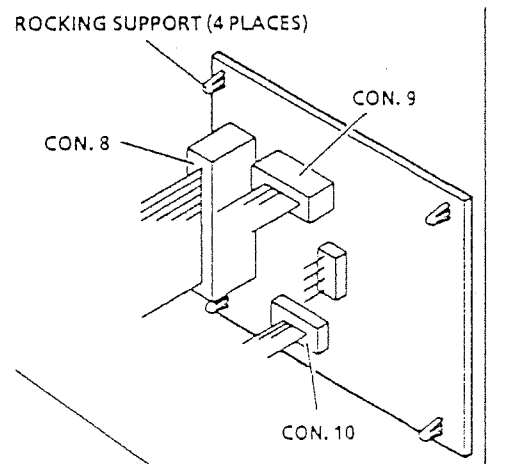
4. Remove the power unit.

1) Remove power unit connectors *11* & *12*.

2) Remove the 2 attachment screws from the power unit (located in the lower part of the scale).

CON. 11

CON. 12

ATTACHMENT SCREWS
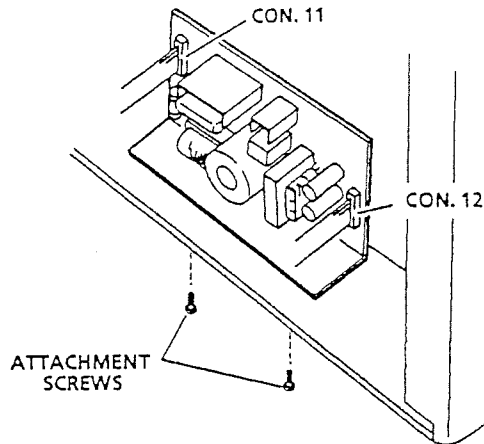
3.3 DISPLAY BOARD REPLACEMENT

1. Remove the display rear cover.

1) Remove the 4 screws attached to the rear cover.

REAR COVER

MAIN BODY DISPLAY

ATTACHMENT SCREW
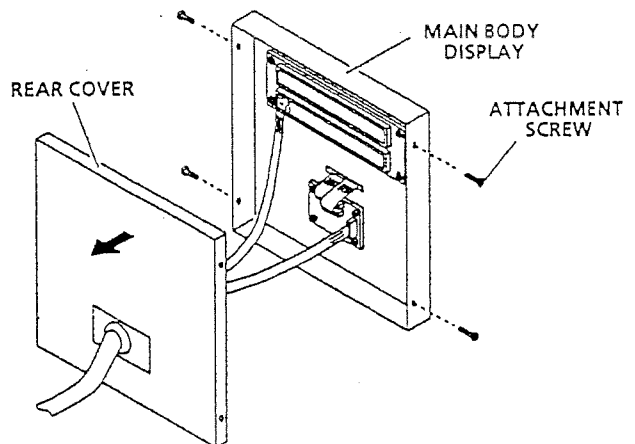
2. Remove the keyboard junction board.

1) Remove the keyboard junction board connectors 1~3.

2) Remove the 4 attached nuts from the keyboard junction board.

NUT

CON. 1

CON. 2

CON. 3
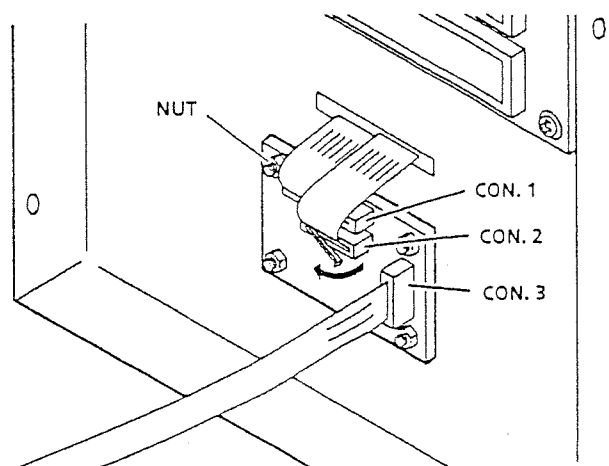
3. Remove the keyboard.

1) Peel off the key board starting from the corner.

⚠ *CAUTION!* If the keyboard is removed even once, it becomes unusable. Never remove unless necessary.
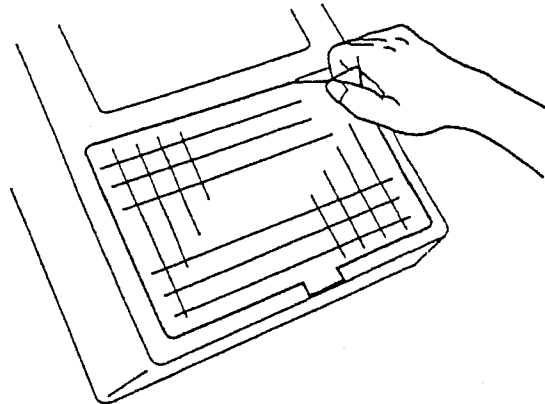
4. Remove the Display Board

1) Disconnect connector 4 from the display unit.

2) Remove the 4 screws which secure the display unit.

SCREW

CON. 4
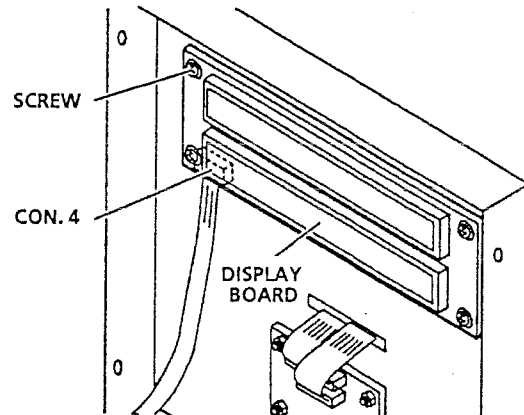
DISPLAY BOARD

⚠ *CAUTION!*
- To avoid damage to the cover, open it slowly and carefully.
- Avoid touching the display unit.
- No display will appear unless all the dip switches on the display board are OFF.

DIP SWITCHES

CN2

CN1

ON OFF
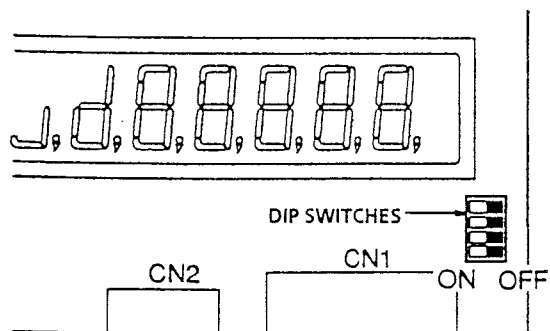
3.4   LOAD CELL REPLACEMENT

1. Remove the weigh platter.

1) Lift the weigh platter while keeping it on a horizontal level.

WEIGH PLATTER

WEIGH UNIT BODY
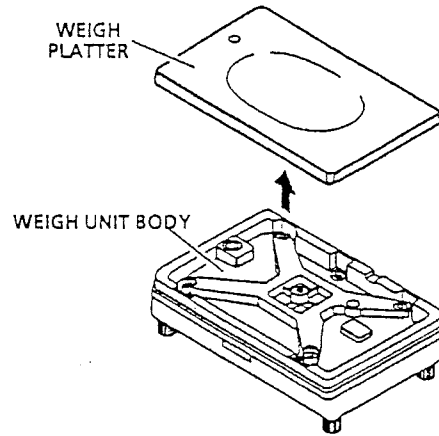
⚠ *NOTE:* When installing the weigh platter, match the pin below it to the platter's rubber support.

2. Remove the seal.

1) Cut the base seal wire.*

2) Remove the seal screws (screw 1, screw 2).

SCREW 1
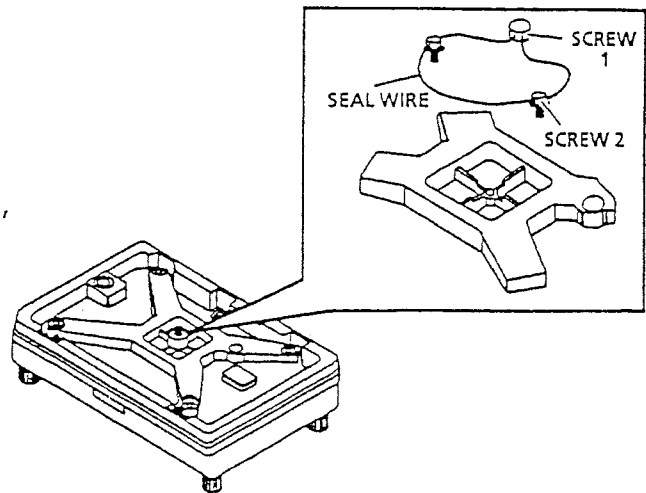
SEAL WIRE

SCREW 2

⚠ *CAUTION!* ────────────────────────────

- *A base seal wire is attached only for base seal wire designated countries. For other countries, remove screw 2 and screw 3 only.
- After the wire is cut, another examination of the base seal is required. When it is not necessary, do not cut the base seal wire.

3. Remove the platter support.

1) Remove the 4 screws which secure the platter support.
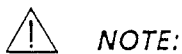
⚠ *NOTE:*

● When replacing the platter support, refer to Section 5.5 of this manual and perform a four-corner test.

ATTACHMENT SCREW

PLATTER SUPPORT
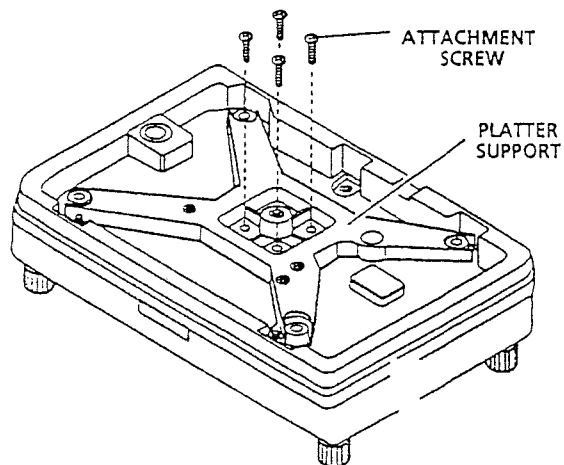
4. Remove the weigh unit cover.

1) Remove the 4 screws which secure the weigh unit cover.
2) Slowly lift off the weigh unit cover.

ATTACHMENT SCREW

WEIGH UNIT COVER
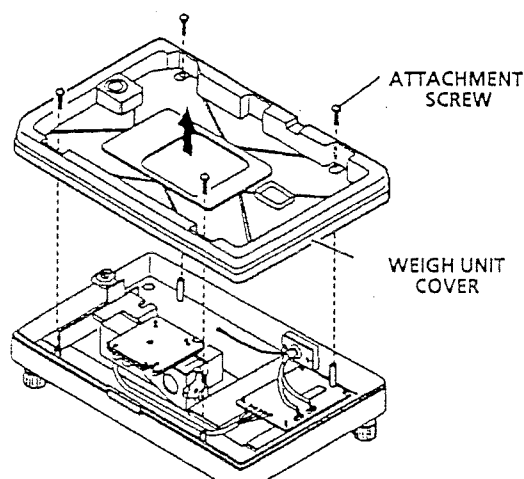
5. Remove the A/D board.

1) Remove A/D board connectors 1 and 2.
2) Remove the rocking support which is attached to the main board in 4 places.
3) Remove the load cell connection cable (soldered in 5 places).

A/D BOARD

CON. 1

CON. 2

LOAD CELL CONNECTOR CABLE
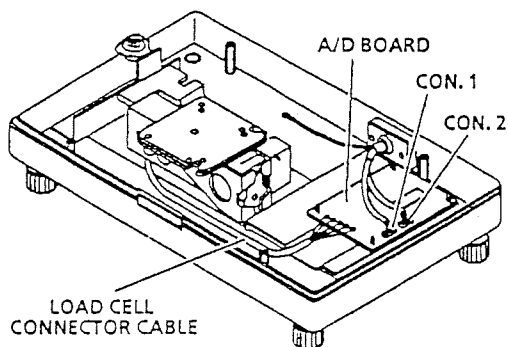
6. Remove the load cell unit.

1) Remove the 2 screws which secure the load cell unit.

2) Remove the load cell unit.
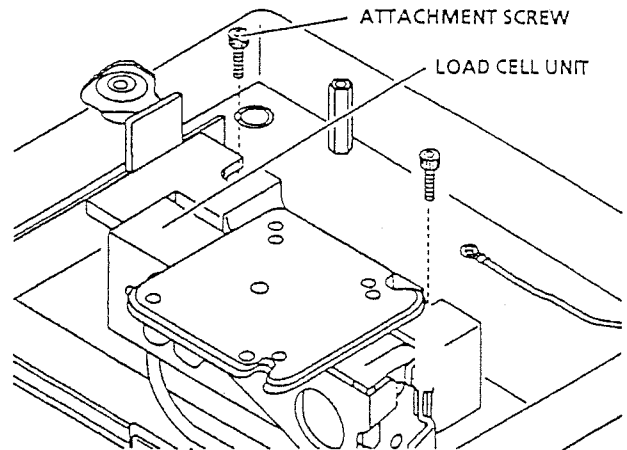
⚠ CAUTION! ────────────

- The load cell output cable has five soldered points. When replacing be sure that the wires are in the correct order.
- After replacing the load cell unit, perform a four-corner test. (Reference: Section 5.5 of this manual)
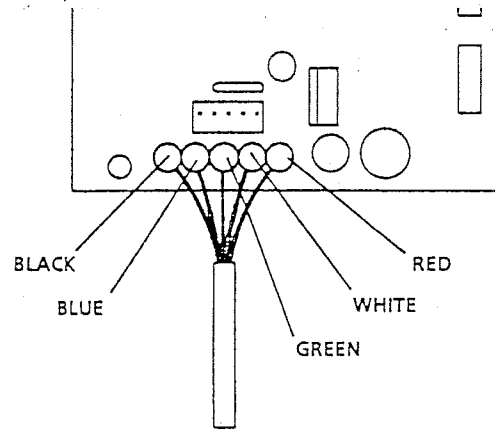
4 Electronic Configurations

4.1 CONNECTOR CONFIGURATION

DP-3000 • SERVICE • REV 0
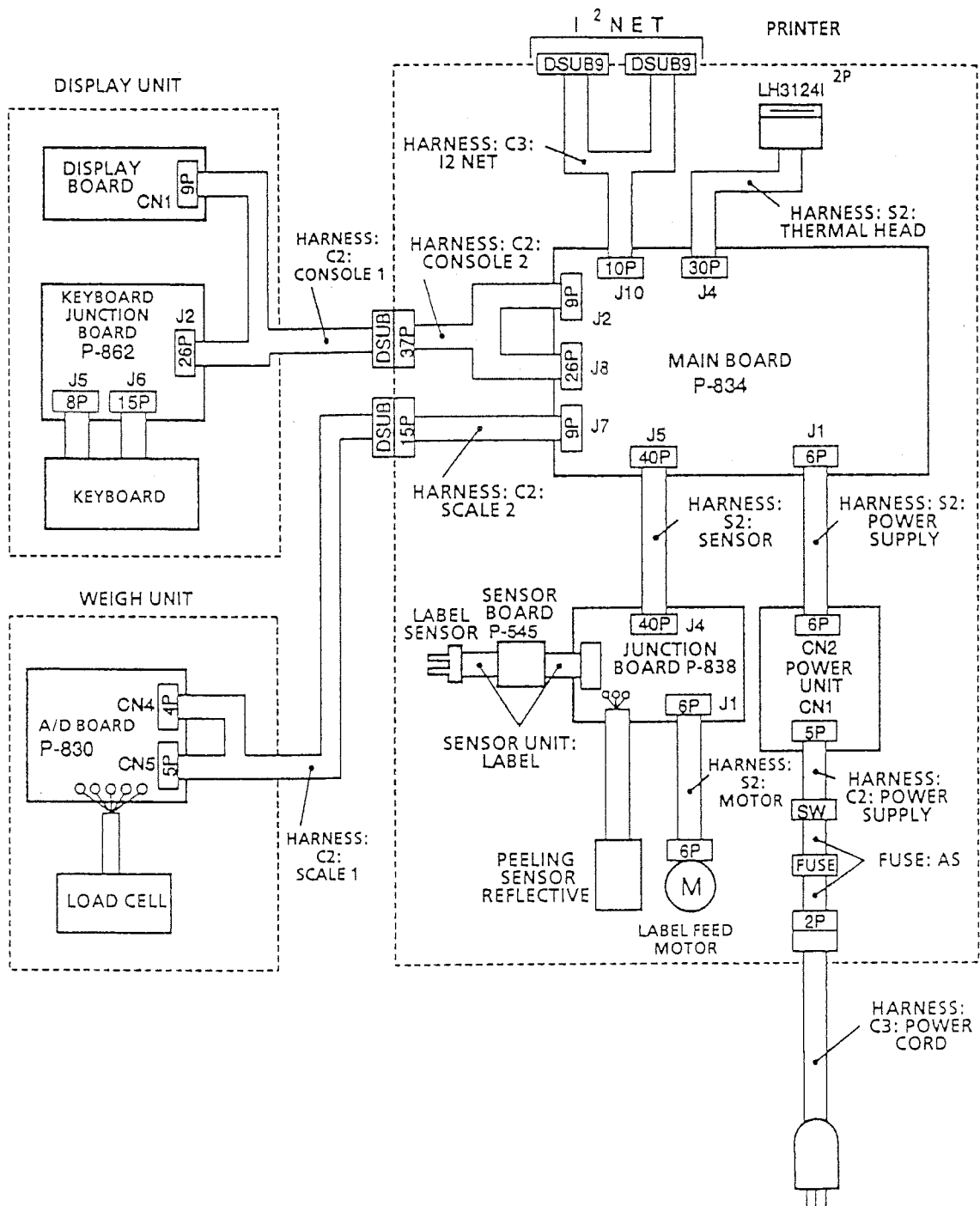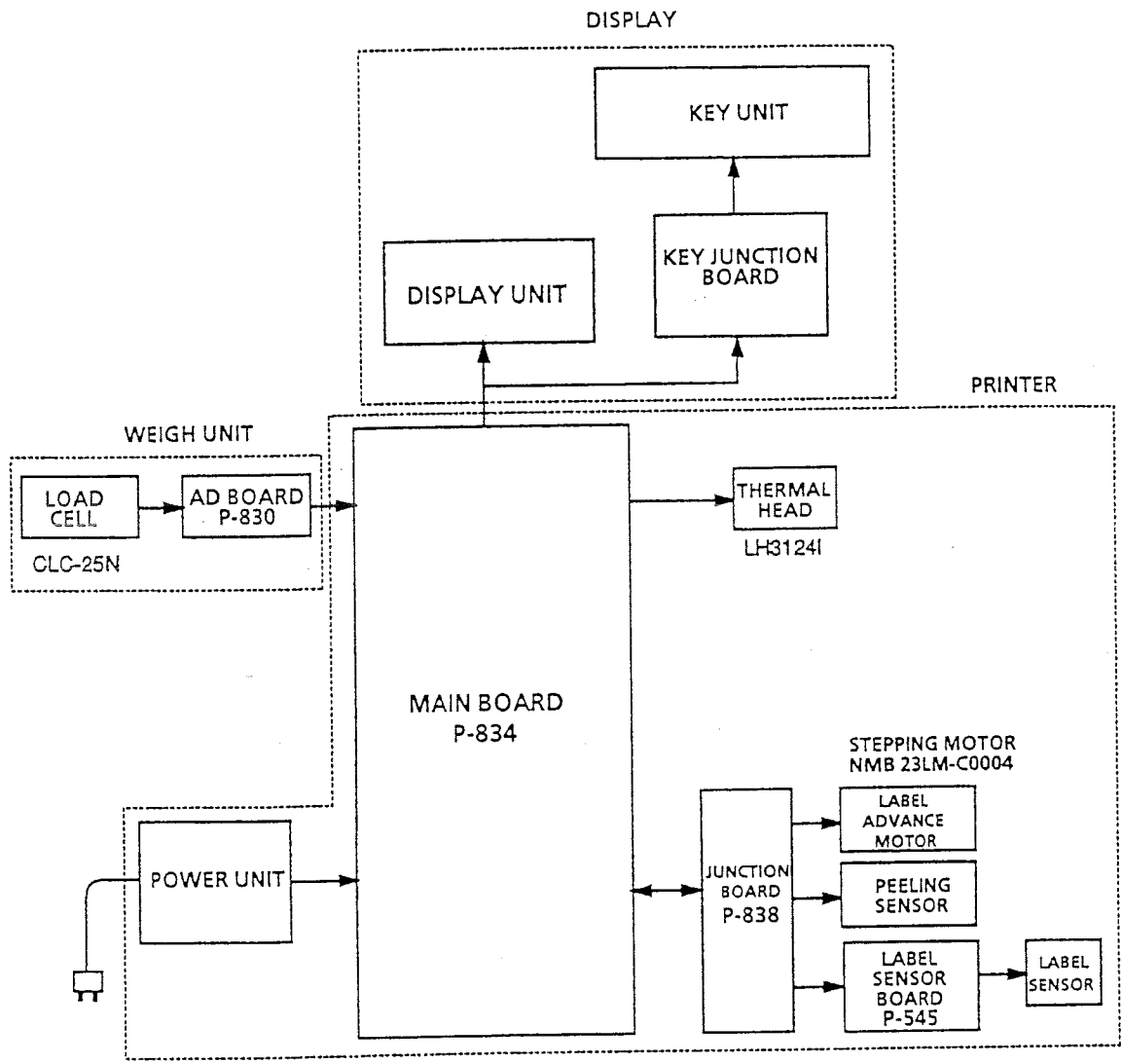
4.2   BLOCK DIAGRAM

4.3 POWER UNIT

The power unit performs efficient voltage conversion, stabilizes low voltage, and supplies power to the various units.

1. External View

2. Block Diagram

CN1	SLS100P	SLS100PH
1	AC100V~200V	AC200V~240V
3	AC100V~200V	AC200V~240V
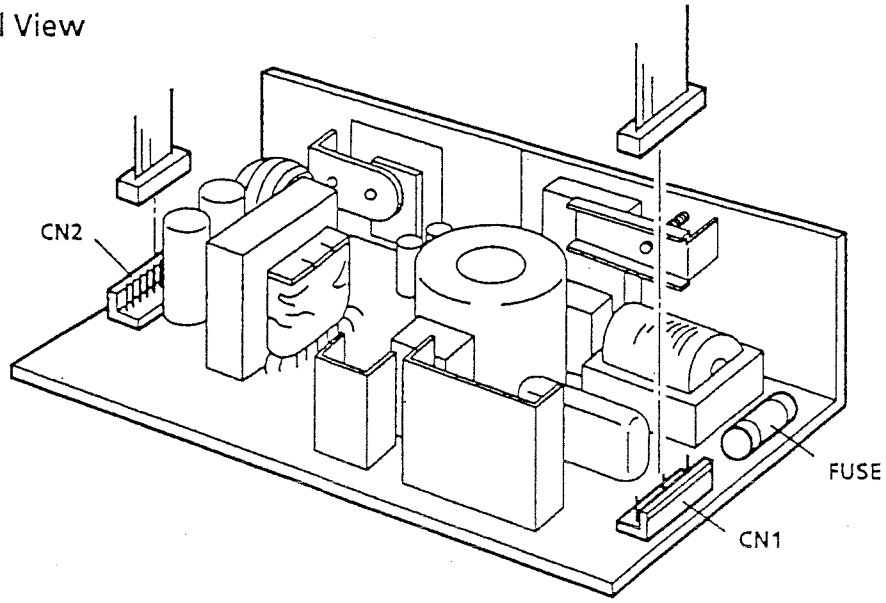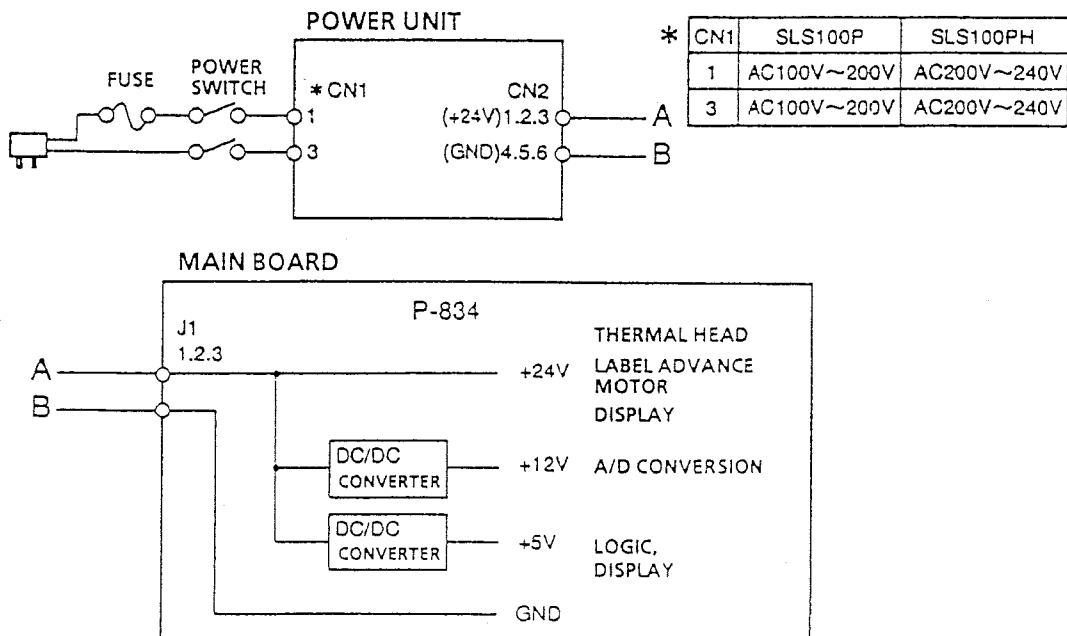
4.4   MAIN BOARD (P-834)

This board is equipped with a 16-bit microprocessor and is used to process scale data. The board is multilayered, and its high precision construction is designed to reduce electrical impedance, electrical noise and static electricity.

1. External View

J10
I2NET CONNECTOR

J9
NOT IN
  USE

J8
KEYBOARD BOARD
     TO J2

J7
A/D BOARD
TO CN4, CN5

J6
NOT IN
  USE

IC15
HN27C4001G
(ROM)

J5
JUNCTION
BOARD TO J4

J4
TO THERMAL HEAD

BATTERY SWITCH

LITHIUM BATTERY

IC12
PD70208G-10
(CPU: V40)

F1(1A)
+5V POWER FUSE

J3
NOT IN USE

J2
DISPLAY
TO CN1

J1
POWER UNIT
TO CN2
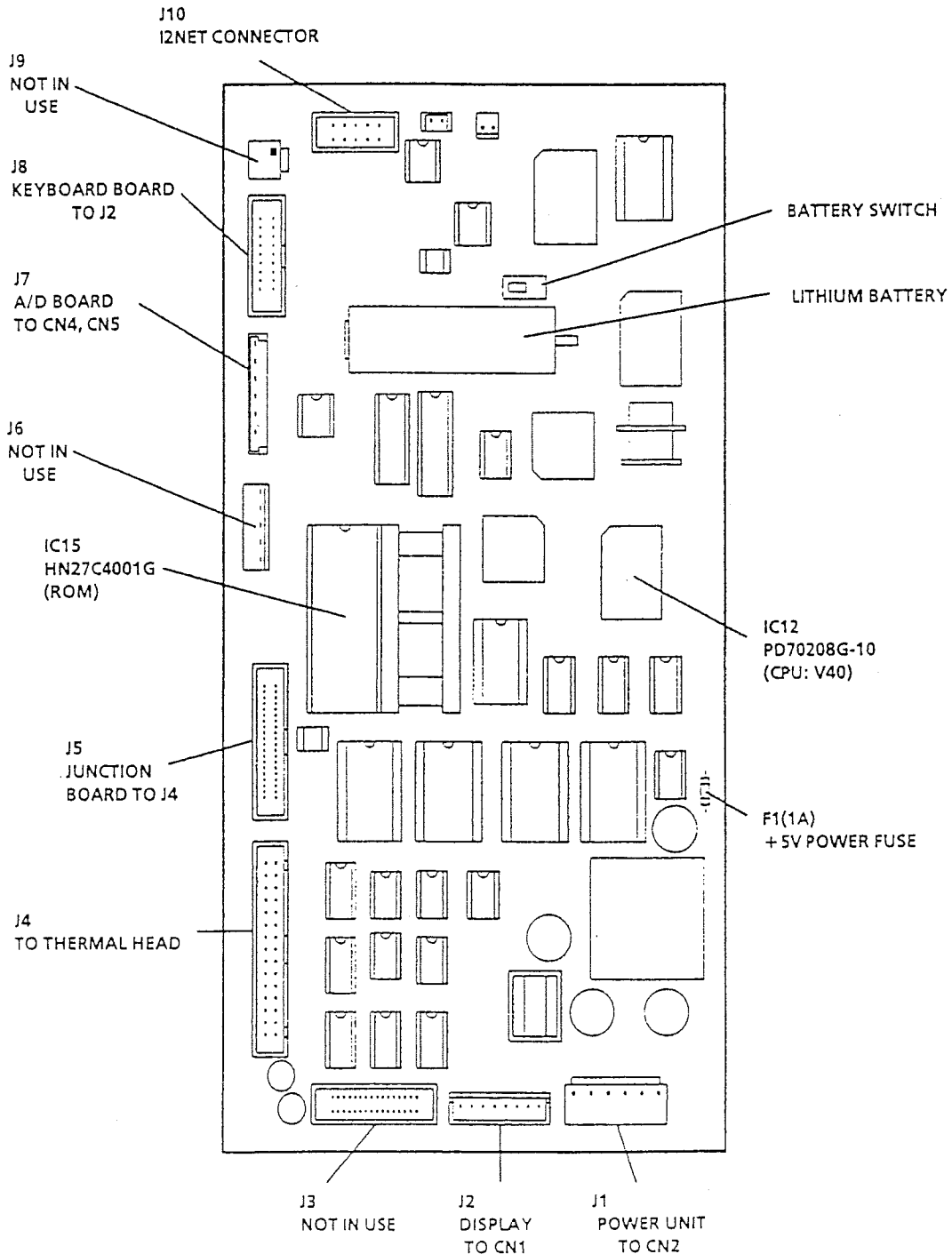
2. Board Functions

1) Control of overall unit via CPU (V40)
   ※EPROM (Program memory) 4m type (1) is installed
2) AD conversion (weigh data)
3) Key data input
4) Price calculation
5) Dot matrix display of weight, price and unit price data
6) Label advance motor output
7) Peeling sensor
8) Thermal head printing output
9) I2 net output
10) Option (CSIS) output

3. Battery Switch

A lithium memory backup battery is included in these units.
After installation make sure the battery switch is set to ON.
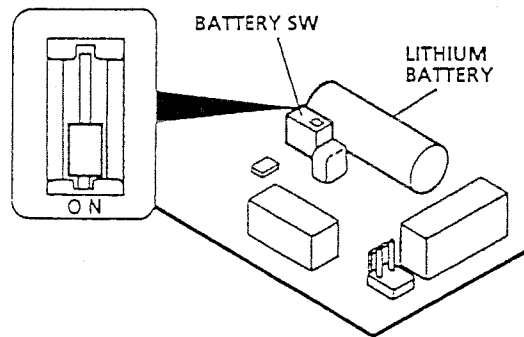
⚠ *NOTE:* This scale uses a rechargeable lithium battery. Normal charge is 3.8 and average life is 10 years. Battery switch is set to ON at time of shipment from factory.

⚠ *CAUTION!* There is danger of explosion if this battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

4.5   A/D BOARD (P-830)

The A/D board converts analog weigh data from the load cell into digital data, and performs automatic span control and zero zero compensation.

External View
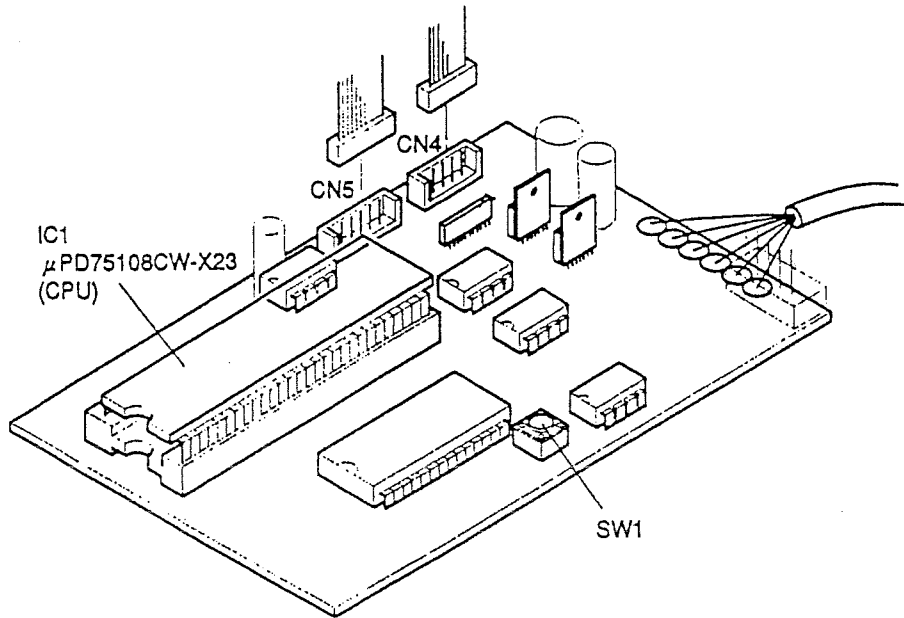
4.6   KEYBOARD JUNCTION BOARD (P-862)

This unit consists of 3 connectors and a buzzer.
The board transmits key switch data to the main board via connector J2.

External View
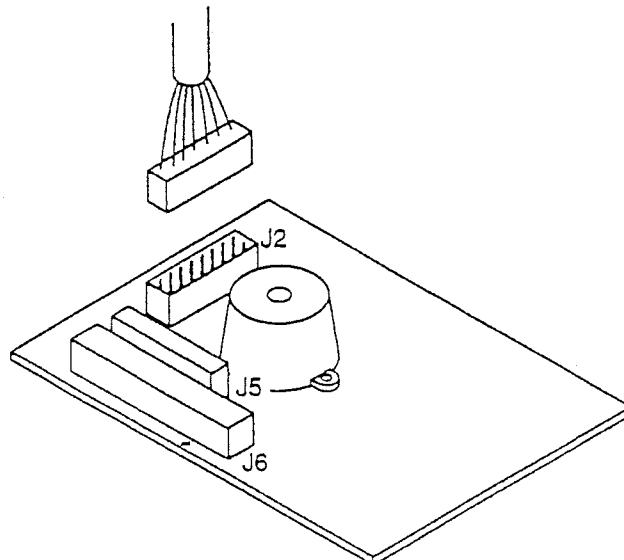
4.7   JUNCTION BOARD WITH PEELING SENSOR (P-838)

This board transmits peeling sensor and stepping motor signals from its J4 connector via flat cable to main board J5 connector.

External View
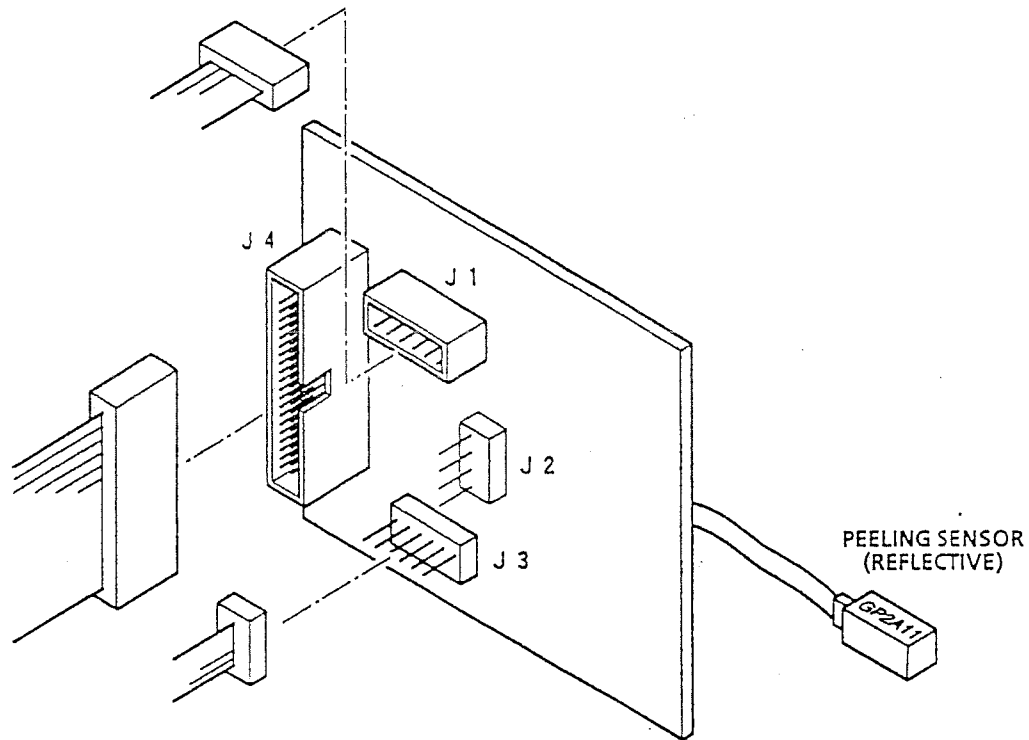
⚠ *NOTE:* The peeling sensor power cord is soldered to the rear of the junction board.

4.8   DISPLAY UNIT

The DP-3000 is equipped with both full dot and a 7-segment display modules.

External View

DOT MATRIX DISPLAY

7-SEGMENT DISPLAY

FUSE 1 (0.6A)
FOR DOT DISPLAY

FUSE 2 (0.5A)
FOR 7-SEGMENT
DISPLAY
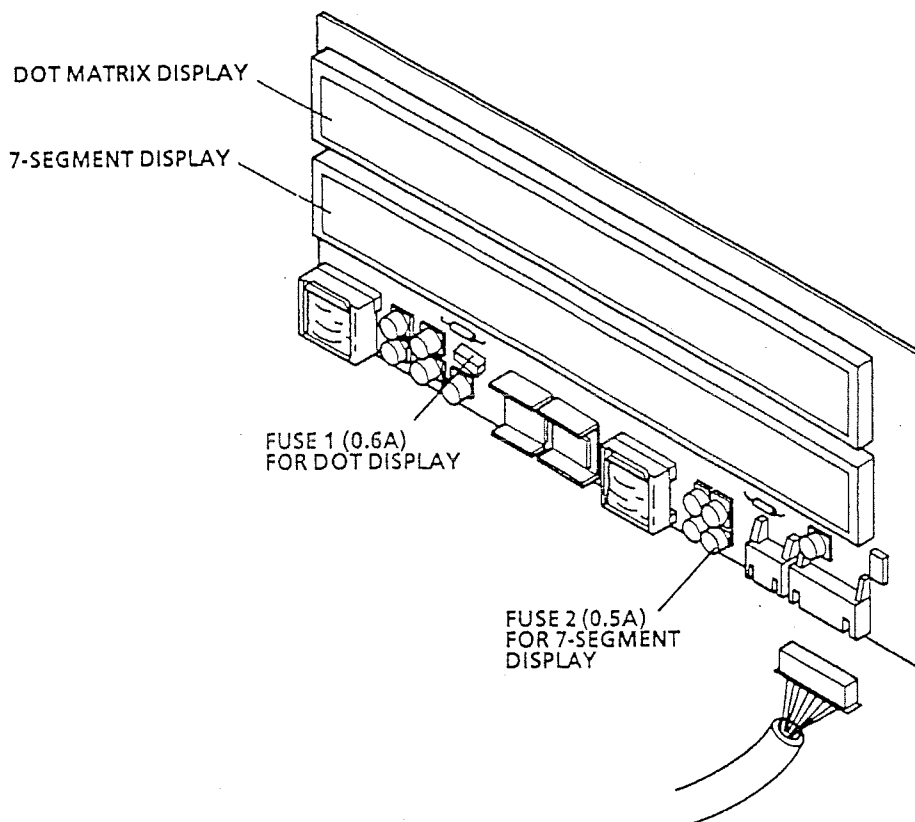
⚠ *CAUTION!*
- The display modules are made of glass so care should be taken not to touch or impact the units.
- Do not remove the connectors with the power ON.
- Turn all the dip switches on the display board to OFF, or no display will appear.

4.9   CONNECTOR BRACKET

Includes the power switch, power cord, fuse and I² NET connectors.

External View

I² NET (9 PIN)

TO DISPLAY (37 PIN)

TO WEIGH UNIT (15 PIN)

POWER SWITCH

FUSE

POWER CORD

TO AC POWER SUPPLY
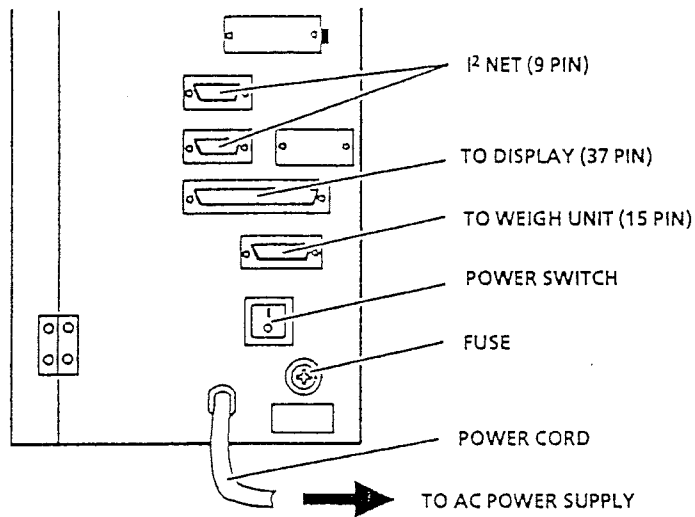
4.10   PEELING SENSOR (REFLECTIVE)

This sensor controls label advance for printing using a reflective photo sensor.

External View

PEELING SENSOR
(REFLECTIVE)
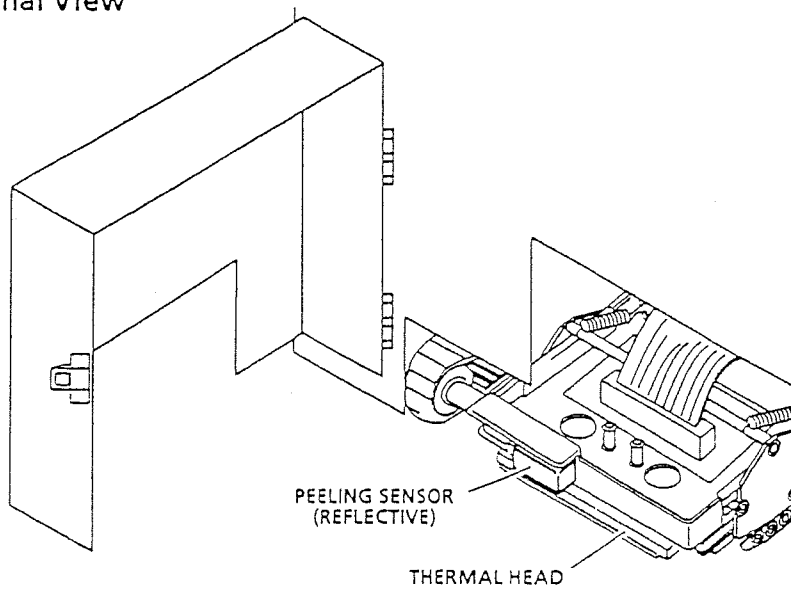
THERMAL HEAD

4.11 LABEL SENSOR

The label sensor utilizes a photo-interrupter to detect the gap between labels, and functions to ensure that labels are printed correctly one at a time.

External View
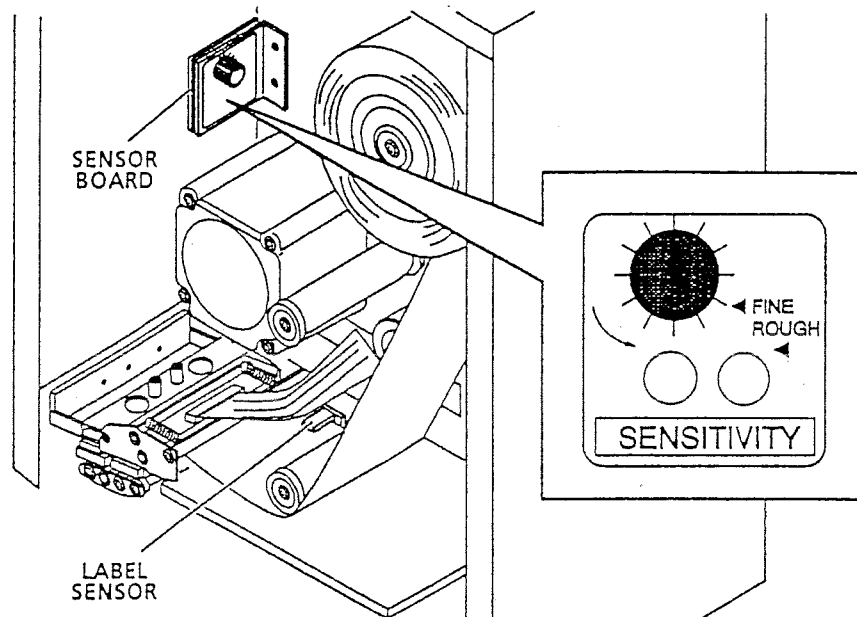
5 | Thermal Head

5.1   OVERVIEW

This 440 dot thermal head is specifically intended for use with label printers.

5.2   SPECIFICATIONS

Specification Sheet

Type	LH3124I (Double density thermal head) TDK Co.
Overall dot count	448 dots
Dot pitch	0.135mm
Head resistance value	$R = 528 \sim 672\Omega$
Required power	0, 66 [W/dot]
Applied voltage	24 [V]

Configuration

HEAD RESISTANCE VALUE
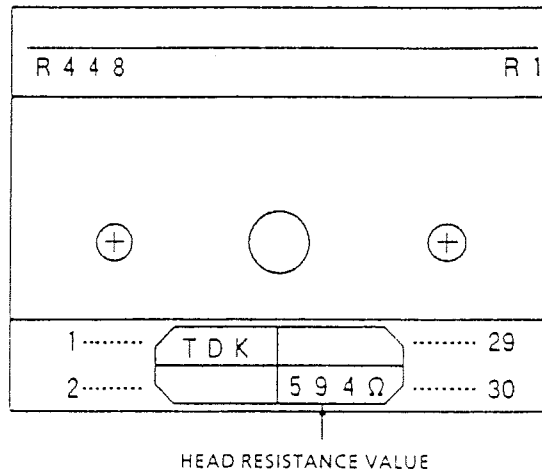
5.3 THERMAL HEAD ADJUSTMENT

If the printing surface of the thermal head and the top line of the print roller are not aligned, then print quality across the width of the label will be poor.

First, print a test label, and if the clarity of the printed characters is not satisfactory, perform adjustment according to the following procedure.

1) Loosen by 1/4 turn the 2 thermal head attachment screws.

2) Manually adjust the position of the thermal head so that the top line of the roller and the thermal head print surface are aligned.

   Print out another test label, and note the print density. If not satisfactory, adjust the position of the thermal head, then print another label. Repeat until print density is correct.

   After adjustment, retighten the two attachment screws.

ATTACHMENT SCREWS (2)

THERMAL HEAD PRINT SURFACE

TOP LINE

PRINT ROLLER
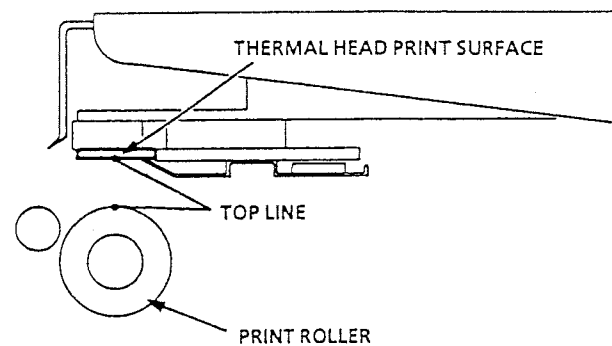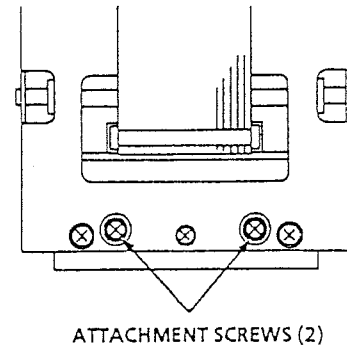
⚠ *CAUTION!* ──

- Avoid touching the surface of the head. If touched, the surface should be wiped clean with a specialized head cleaner formula.
- Before adjusting, first lower the print density. This will facilitate adjustment.

──

3) Set the thermal head resistance value.

⚠ NOTE: For setting method, refer to Chapter S5-2.

4) Perform a label printing test.

⚠ NOTE: For test method, refer to Chapter S5-3.

5.4   THERMAL HEAD CLEANING

If ink, glue, or other foreign matter adheres to the print surface of the thermal head, head conductivity will be diminished, resulting in poor print quality and a shortened thermal head lifespan.

(1) Wipe the surface of the head clean using a soft cloth moistened with a specialized head cleaning formula.

⚠ *CAUTION!*
- Do not touch the surface of the head with hands or metallic objects.
- Never use thinner to clean the head as it may damage other parts of the scale.

5.5   OTHER ADJUSTMENTS

Four limit bolts in the platter base function to prevent damage to the load cell from weight overload.
Four-corner adjustment is performed when the load cell is replaced or when external impact to the scale necessitates it.

1. Four-corner adjustment

1) Place a weight equal to scale capacity (15kg) plus 10% (1.5kg) on each corner of the weigh platter base in rotation.

Rotate each of the four-corner adjustment screws so that they just make contact with the limit bolts when the weight is loaded [Gap (a) in diagram].
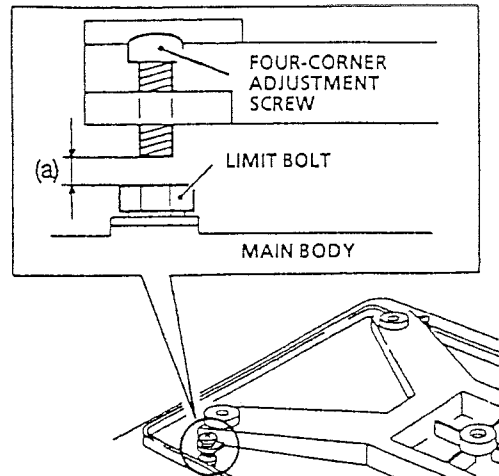
2. Label Sensor Adjustment

Label sensing is based on detection of variations in light between labels and the inter-label gaps. This adjustment is performed to compensate for differences in light values which vary according to the type of label paper used.

SENSOR ADJUSTMENT

Sensor adjustment is performed using the label sensor adjustment unit.

FOR FINE ADJUSTMENT

◄ FINE

ROUGH ◄

SENSITIVITY

MONITOR LED   FOR ROUGH ADJUSTMENT
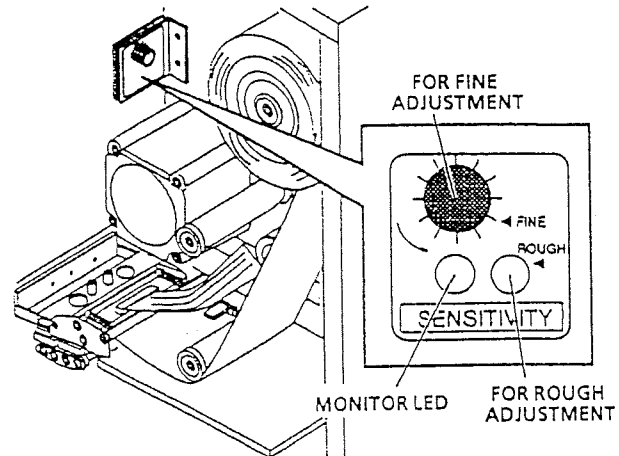
ADJUSTMENT METHOD

1) Align the fine adjustment volume with the sensor.
2) Rotate the rough adjustment volume to the limit in the counterclockwise direction.
3) Press the label advance key one time, and adjust the rough adjustment volume clockwise to the position where one label stops. This point is "A"
4) Rotate the rough adjustment volume to the limit in the clockwise direction.
5) Press the label advance key one time, and adjust the rough adjustment volume counterclockwise to the position where one label stops. This point is "B".
6) Set the rough adjustment volume midway between points A and B.

LABEL IS ADVANCED

B

A

LABEL STOPS PART WAY

LABEL IS ADVANCED
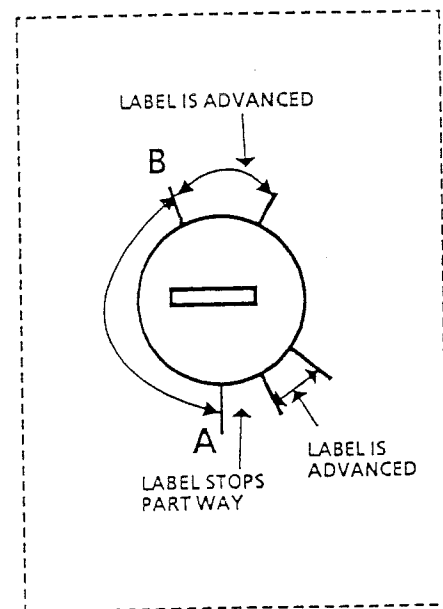
SENSITIVITY LEVEL CHECK

After adjustment, use the monitor LED to check that the sensitivity level is correct.
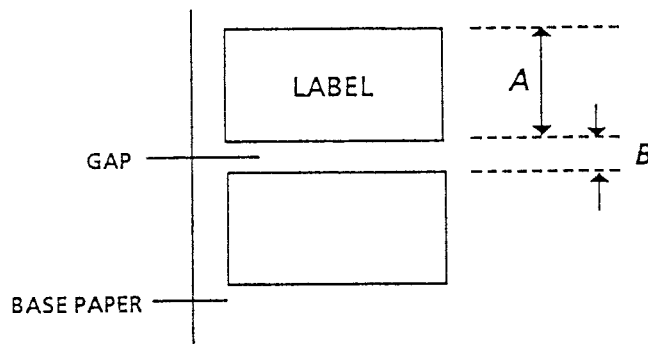
- Monitor LED ON/OFF status:
    - ‣ When Label sensor passes A, monitor goes out.
    - ‣ When Label sensor passes B, monitor lights.

ADJUSTMENT METHOD

⚠ *NOTE:* Make sure that the LED is always lit just before printing (label stopped).

LABEL STOP POSITION ADJUSTMENT

For instructions on label stop position adjustment, refer to Chapter S5; Registration mode 1: Label Format; Label Sensor Distance (b01-09).

6 Troubleshooting

This chapter describes periodic parts replacement, and troubleshooting counter-measures for error messages.

6.1   PERIODIC PARTS REPLACEMENT (MTBF*)

The following parts need to be periodically replaced.

1. *Thermal head (LH3124I)*
   - Replacement period: When label advance distance reaches 60 km.
2. *Display module (Display board)*
   - Normal life expectancy: Under normal usage conditions, 30,000 hours.
3. *Print roller*
   - Replacement period: When label advance distance reaches 300 km.

   *MTBF = Mean Time Between Failures

6.2   MALFUNCTION TROUBLESHOOTING CHART

Error Condition	Probable Causes	Countermeasures
Scale cannot be powered up.	① Power plug mis-inserted. ② Fuse is blown ③ Main board defective ④ Power unit defective ⑤ Power switch defective	① Reinsert power plug ② Replace fuse ③ Check, replace main board ④ Check, replace power unit ⑤ Check, replace power switch
Test mode is entered at power up.	① Main board defective ② Keyboard board defective	① Check, replace main board ② Check, replace keyboard board
"We will serve you shortly" message remains displayed indefinitely.	① Load cell defective ② External vibration ③ Main board defective ④ Power unit defective	① Check, replace load cell ② Check, change installation site ③ Check, replace main board ④ Check, replace power unit
Displayed weight is different from actual weight; or, displayed weight fluctuates.	① Four-corner screw making contact with limit bolt. ② Foreign matter under weigh platter or load cell. ③ Load cell defective ④ Main board defective	① Perform four-corner test ② Remove foreign matter ③ Adjust, replace load cell ④ Check, replace main board
Certain segments do not light or are continuously lit.	① Program not running ② Main board defective ③ Display board defective	① Check connectors ② Check, replace main board ③ Check, replace display board
Input to some or all keys is not accepted.	① Keyboard board defective ② Faulty keys	① Check, replace keyboard board ② Check, replace keys
Registration data changes.	① Battery defective ② Main board defective ③ Ext. noise/static electricity	① Replace battery ② Check, replace main board ③ Check, change installation site
All of the display segments extinguish during operation	① Power source faulty ② Power unit defective ③ Display board defective ④ Main board defective	① Check power source voltage ② Check, replace power unit ③ Check, replace display board ④ Check, replace main board
Partial printing or no printing at all.	① Thermal head cable defect ② Power unit defective ③ Thermal head defective ④ Main board defective	① Check, replace cable ② Check thermal head applied voltage. ③ Adjust replace thermal head ④ Check, replace main board

6.3   ERROR MESSAGES

ERROR MESSAGE

```
┌─────────────────────────────────────────┐
│  ┌───────────────────────────────────┐  │
│  │  Please Check Scale               │  │
│  └───────────────────────────────────┘  │
│  WEIGHT     lb.  UNIT PRICE  $/lb. ██TOTAL PRICE██     $ │
│  ┌───────────────────────────────────┐  │
│  │  Err -- 56                        │  │
│  └───────────────────────────────────┘  │
│     ZERO  NET  SAVE  AUTO       ▭──PLU──▭  │
│  ▣ISHIDA  DP-3000        Capacity 30X .01lb. │
└─────────────────────────────────────────┘
```

ERROR NO.

Error No.	Error message	Countermeasures
2 3 4 5 6 7	*Character over* *POP message: Over character* *Ad message: Over character* *Additives: Over character* *Reg. Code Over character* *Store name/addr. : Over char.*	When there are too many characters registered for the label which is set, the label is not printed and an error message is displayed. Press ▢ CLEAR to return to the original display, and check the registration contents.
8	*Label end*	Replace with a new label and press ▢ CLEAR to return to the original display,
9	*Label size error*	This message is displayed when the set label size and the size of the labels in the cassette are different. Press ▢ CLEAR to return to the original display, and check the label size setting.
10	*Excess $ on scale item*	When discount price function is used, this message indicates that the discount price is the same or exceeds the original price. Press ▢ CLEAR to return to the original display, and check the discount registration contents.
12	*Coupon message: Over character*	When too many characters are recorded in a label setting, the label will not print and an error message will be displayed. Press ▢ CLEAR and check the recorded content.

Error No.	Error message	Countermeasures
13	*Set the target press [CL] key*	Weight and price have reached the target setting value. Reset the target value.
40 42 43	*Memory not initial set* *System error* *E2ROM not initial set*	Memory content has possibly been destroyed. Memory initialization or a main board exchange is required.
50	*No power scale*	Check the connection between the weigher and the printer. Attach the connector if it is disconnected.
57	*Remove the item on the platter*	When the scale is not stable, or if the scale is powered up with something on the weigh platter this message is displayed. Remove the object from the platter.

S1 Outline of Software

```
00000H ┌──────────────────────────┐
       │ GENERAL AREA             │
       │                          │
       │ MASTER RAM               │
       │ ADMINISTRATION AREA      │
       │              1M—SRAM     │
20000H ├──────────────────────────┤
       │ IMAGE RAM AREA           │
       │                          │
       │                          │
       │              1M—SRAM     │
40000H ├──────────────────────────┤
       │ CHARACTER ROM AREA       │
       │                          │
60000H │                          │
       │                          │
       │                          │
80000H │              16×16       │
       ├──────────────────────────┤
       │ PROGRAM AREA             │
       │                          │
A0000H │                          │
       │                          │
       │                          │
C0000H │                          │
       │                          │
       │                          │
E0000H │                          │
       │                          │
       │                          │
       │              4M—EPROM    │
       └──────────────────────────┘
```

MASTER RAM OPEN
MASTER RAM EPROM 2M
EPROM 2M
E²ROM

S3 | Display Modules

S3.1 DISPLAY MODULE OVERVIEW

① Setting item
② Selected parameter
③ Selected parameter's setting number
④ Root menu No.
⑤ Sub menu No.
⑥ Selected item's number
⑦ Selected parameter's number

S2 | Print Format Modification

Label printing area area can be changed to conform to user's label specifications.

S2.1 PRINT FORMAT OVERVIEW

The DP-3000 has 6 types of default label formats. These types (shown in the table) serve as the base settings which can be modified as needed.

Format No.	Label
No. 1	60mm UPC
No. 2	60mm Non-UPC
No. 3	64mm UPC
No. 4	60mm Coupon
No. 5	
No. 6	

S2.2 LABEL FORMAT MODIFICATION RANGE

The label printing areas are divided into three sectors: Product name, Data, and Store Name and address. The only print format sector which can be modified is the data sector.

Product name sector
Data sector
Store name and address sector

⚠ *NOTE:* Product name reference chapter: Chapter 4--Setting mode 1 (Label Format). Note that the number of Store name and address and Product name lines is fixed.

S2.3 FORMAT MODIFICATION METHOD

Print format change is performed in Test mode. For more details, refer to Chapter S5--Test Mode 7.

S3.2 ROOT AND SUB MENU SELECTION

This section describes the procedures for selecting the root and sub menus.

■ **Root Menu Selection Procedure**
   - Enter the number of the Root menu to be displayed, then press □ ↓.
   - Press □ ↓ on the setting mode display to switch the root menus in sequence.

■ **Sub Menu Selection Procedure**

Press □ ENTER on the root menu display.
   - Enter the number of the sub menu to be displayed, then press □ ↓.
   - Press □ ↓ to switch the sub menus in sequence.

⚠ *NOTE:* Press □ END to return to the mode displays.

S4 Setting Mode

The Setting mode is used to input settings to conform with user requirements.

S4.1 MENU SCHEMATIC

Setting Mode		Sub Menus

1 Label Format (b01)

— ※Enter Cassette No. and press □PLU.

(b01-00)

01	Label Format number	06	Commodity Line
03	With Backing/Individual	07	Label Length + Gap
04	Field Title Print	08	Label Sensor Distance
05	Store Name, Address		

2 Bar Code (b02) (b02-**)

01	UPC Prefix	03	Bar Code Type
02	Digit Flag	04	UPC Type

3 Code (b03) (b03-**)

01	Department	02	Group
03	UPC 8 Reference	04	UPC 13 Reference

4 Initial Data Set (b04) (b04-**)

01	Register Code	03	P. Time
02	Date Print	04	E. Time

8 PLU File (b08) (b08-**)

02	Sales Mode	09	Cost Price	16	POP
03	Mark Down	10	Tare	17	Extra Message
04	Unit Price	11	Shelf Life	18	Coupon
05	Fix Price	12	Use By	19	Pack Time
06	Fix Weight	13	Department	20	Barcode Type
07	Regi. Code	14	Group	21	Barcode Prefix
08	Qty	15	Item Code	22	10 Digit Code
				23	Open Price

10	Label Format
	(b10)

01	DAILY SALES TOTAL	22	DAILY ITEM(GR.) WT.Z	43	WEEKLY ITEM(DPT.) WT.Z
02	DAILY MACHINE TOTAL	23	DAILY ITEM(GR.) CT.Z	44	WEEKLY ITEM(DPT.) CT.Z
03	DAILY ITEM(ITEM)	24	DAILY PROFIT TOTAL	45	WEEKLY ITEM(GR.)
04	DAILY ITEM(ITEM) PRICE ABC	25	DAILY DEPARTMENT	46	WEEKLY ITEM(GR.) PR.ABC
05	DAILY ITEM(ITEM) WEIGHT ABC	26	DAILY GROUP	47	WEEKLY ITEM(GR.) WT.ABC
06	DAILY ITEM(ITEM) COUNT ABC	27	DAILY HOURLY TOTAL	48	WEEKLY ITEM(GR.) CT.ABC
07	DAILY ITEM(ITEM) PRICE Z	28	DAILY OPERATOR TOTAL	49	WEEKLY ITEM(GR.) PR.Z
08	DAILY ITEM(ITEM) WEIGHT Z	29	WEEKLY SALES TOTAL	50	WEEKLY ITEM(GR.) WT.Z
09	DAILY ITEM(ITEM) COUNT Z	30	WEEKLY MACHINE TOTAL	51	WEEKLY ITEM(GR.) CT.Z
10	DAILY ITEM(DPT.)	31	WEEKLY ITEM(ITEM)	52	WEEKLY PROFIT TOTAL
11	DAILY ITEM(DPT.) PR.ABC	32	WEEKLY ITEM(ITEM) PR.ABC	53	WEEKLY DEPARTMENT
12	DAILY ITEM(DPT.) WT.ABC	33	WEEKLY ITEM(ITEM) WT.ABC	54	WEEKLY GROUP
13	DAILY ITEM(DPT.) CT.ABC	34	WEEKLY ITEM(ITEM) CT.ABC		
14	DAILY ITEM(DPT.) PR.Z	35	WEEKLY ITEM(ITEM) PR.Z		
15	DAILY ITEM(DPT.) WT.Z	36	WEEKLY ITEM(ITEM) WT.Z		
16	DAILY ITEM(DPT.) CT.Z	37	WEEKLY ITEM(ITEM) CT.Z		
17	DAILY ITEM(GR.)	38	WEEKLY ITEM(DPT.)		
18	DAILY ITEM(GR.) PR.ABC	39	WEEKLY ITEM(DPT.) PR.ABC		
19	DAILY ITEM(GR.) WT.ABC	40	WEEKLY ITEM(DPT.) WT.ABC		
20	DAILY ITEM(GR.) CT.ABC	41	WEEKLY ITEM(DPT.) CT.ABC		
21	DAILY ITEM(GR.) PR.Z	42	WEEKLY ITEM(DPT.) PR.Z		

(b10 - * *)

11	Registration Select
	(b11)

01	PLU FILE	10	DEPARTMENT
02	COMMODITY NAME	11	GROUP
03	PRICE CHANGE	12	OPERATOR
04	EXTRA MESSAGE	13	ADVERTIZING MES.
05	COUPON	14	CAMPAIGN
06	DATE / TIME	17	MACHINE NO.
07	STORE NAME		
08	PRESET KEY		
09	LIST		

(b11 - * *)

12	Total Mode Select
	(b12)

01	DAILY TOTAL
02	WEEKLY TOTAL
03	MONTHLY TOTAL

(b12 - * *)

13	Password
	(b13)

01	REGISTRATION MODE
02	TOTAL MODE
03	SUBTRACTION MODE

(b13 - * *)

S4.2 SETTING PROCEDURES

This section describes setting procedures for the 11 setting items.

1. Label Format (b01)

Label Format is used to set the label print format.
Insert the cassette, or enter the cassette number, then press ☐PLU.
For each item to be set, enter the number corresponding to the desired parameter, then press ☐ENTER.

Menu No.	Description	Parameters	Notes
b01-01	Label format No.	0: Receipt 1: 60mm UPC 2: 60mm Non-UPC 3: 64mm UPC 4: 64mm Coupon 5: 6:	
b01-03	With backing/Individual	0: Labels with backing 1: Individual labels	
b01-04	Field title print	0: Title not printed 1: Title printed	
b01-05	Store name, Address	0: Not printed 1: Printed	
b01-06	Commodity Line	0~99.5 (0.5 steps)	Capital letters (15X30):1 line = 1.0. Lower case letters (7X14): 1 line =0.5. Maximum line count for product name is limit for 175mm label length.
b01-07	Label Length + Pitch	0~99.9 (0.5 steps)	Setting value: label length + label pitch.
b01-09	Label Sensor Distance	0~99.9 (0.1 steps)	
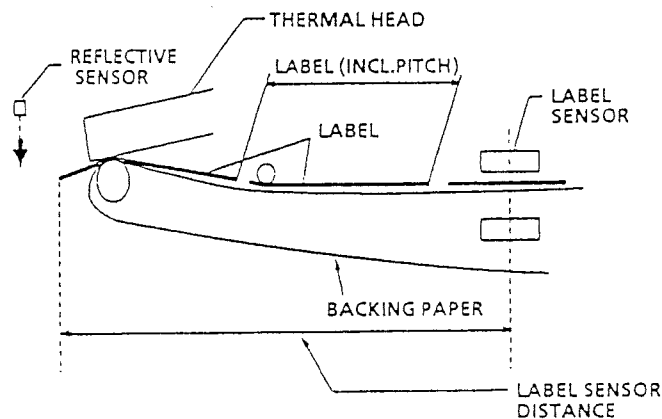
2. Bar Code (b02)

Bar Code is used to set bar code data.

Enter the number corresponding to the desired parameters, then press □ENTER. After setting, confirm that settings are correct.

Menu No.	Description	Parameters	Notes
B02-01	UPX Prefix	Enter 3 digits	※1
B02-02	UPC Prefix	Enter 4 digits	※2
B02-03	Bar Code Type	1: Non-PLU13 2: Non-PLU8 3: PLU13 4: PLU8	
B02-04	UPC Type	1: UPC, CODE: 5 2: UPC, CODE: 6 3: EAN, CODE: 6 4: UPC, PRICE: 5 5: EAN9, PRICE: 5 6: EAN9, CD: 4, PR:5 7: EAN9, PR:4, C/P:5 8: EAN, CD:6, WT:4 9: EAN, CD:5, WT:5 10: CD:4, PR:6 11: 0, COD:4, PR:5 12: MN:3, CD:2, PR:5 13: MN:2 CD:3, PR:5 14: 15: 16:	

※1 UPX Prefix (3 digits)

```
2 02
└┐└┐
 │ └──────────── Non-PLU13
 └────────────── Non-PLU8
```
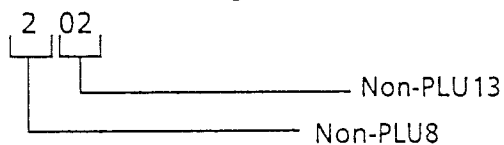
※2 UPC Prefix (4 digits)

```
49 49
└┐└┐
 │ └──────────── PLU13
 └────────────── PLU8
```

3. Code (b03)

Code is used to set the codes for group etc.

Enter the code numbers for each item, then press □ENTER. After setting, confirm that settings are correct.

Menu No.	Description	Parameters	Notes
b03-01	Department	Numeric entry: 2 digits	
b03-02	Group	Numeric entry: 2 digits	
b03-03	UPC 8 Reference	Numeric entry: 2 digits	
b03-04	UPC 13 Reference	Numeric entry: 2 digits	

4. Initial Data Setting (b04)

Initial Data Setting is used to set tax mode.
Enter the number corresponding to the desired parameters, then press ☐ ENTER.
After setting, confirm that settings are correct.

Menu No.	Description	Parameters	Notes
b04-01	Register code	Enter 3 digits	
b04-02	Date Print	Select item by using ☐ →. 1: *Prohibit* --Enter [0] 2: *Pack Date* --Enter [0] 3: *Use By* --Enter 3 digits (No. of days) 4: *Both* --Enter 3 digits (No. of days)	Use by setting [1] indicates same day
b04-03	P. time	Select item by using ☐ →. 1: *Prohibit* --Enter [0] 2: *Internal* --Enter [0] 3: *Designated* --Enter 4 digits indicating time. *Example:* for 8 am enter 800.	Designated time: 0~11 = AM. 12 to 23 = PM.
b04-04	E. time	Select item by using ☐ →. 1: *Prohibit* --Enter [0] 2: *Designated* --Enter 4 digits indicating time. *Example:* for 8 am enter 800. 3: *Relative* --Enter 4 digits *Example:* To increase internal time by 3 hours enter 150. (Setting increments are 50).	Designated time: 0~11 = AM. 12 to 23 = PM.

※ The items b04-02~b04-04 are selected by using ☐ →, then pressing ☐ ENTER.

5. PLU File (b08)

PLU File is used to set which PLU items can be entered. Enter a parameter number for each item, then press ☐ENTER. After setting, confirm that settings are correct.

⚠ *NOTE:* All Item settings: 0＝Not printed; 1: Printed

Menu No.	Description
b08-02	Sales Mode
b08-03	Mark Down
b08-04	Unit Price
b08-05	Fix Price
b08-06	Fix Weight
b08-07	Regi Code
b08-08	Pack Qty.
b08-09	Cost Price
b08-10	Tare
b08-11	Date Print
b08-12	Shelf Life
b08-13	Use By
b08-14	Department
b08-15	Group
b08-16	Item Code
b08-17	POP
b08-18	Extra Message
b08-19	Coupon
b08-20	P. Time
b08-21	E. Time
b08-22	Barcode Type
b08-23	Barcode Prefix
b08-24	10 Dig. Code
b08-25	Open Price
b08-27	Forced Tare
b08-28	Nutrition

6. Preset Report (b10)

Preset Report is used to set which totals will be printed. Enter the number corresponding to the desired parameter for each item, then press □ ENTER. After setting, confirm that settings are correct.

⚠ *NOTE:* All Item settings: 0 = Not printed; 1: Printed

MENU NO.	SETTING DESCRIPTION
b 1 0 — 0 1	DAILY SALES TOTAL
b 1 0 — 0 2	DAILY MACHINE TOTAL
b 1 0 — 0 3	DAILY ITEM(ITEM)
b 1 0 — 0 4	DAILY ITEM(ITEM) PRICE ABC
b 1 0 — 0 5	DAILY ITEM(ITEM) WEIGHT ABC
b 1 0 — 0 6	DAILY ITEM(ITEM) COUNT ABC
b 1 0 — 0 7	DAILY ITEM(ITEM) PRICE Z
b 1 0 — 0 8	DAILY ITEM(ITEM) WEIGHT Z
b 1 0 — 0 9	DAILY ITEM(ITEM) COUNT Z
b 1 0 — 1 0	DAILY ITEM(DPT.)
b 1 0 — 1 1	DAILY ITEM(DPT.) PR.ABC
b 1 0 — 1 2	DAILY ITEM(DPT.) WT.ABC
b 1 0 — 1 3	DAILY ITEM(DPT.) CT.ABC
b 1 0 — 1 4	DAILY ITEM(DPT.) PR.Z
b 1 0 — 1 5	DAILY ITEM(DPT.) WT.Z
b 1 0 — 1 6	DAILY ITEM(DPT.) CT.Z
b 1 0 — 1 7	DAILY ITEM(GR.)
b 1 0 — 1 8	DAILY ITEM(GR.) PR.ABC
b 1 0 — 1 9	DAILY ITEM(GR.) WT.ABC
b 1 0 — 2 0	DAILY ITEM(GR.) CT.ABC
b 1 0 — 2 1	DAILY ITEM(GR.) PR.Z
b 1 0 — 2 2	DAILY ITEM(GR.) WT.Z
b 1 0 — 2 3	DAILY ITEM(GR.) CT.Z
b 1 0 — 2 4	DAILY PROFIT TOTAL
b 1 0 — 2 5	DAILY DEPARTMENT
b 1 0 — 2 6	DAILY GROUP
b 1 0 — 2 7	DAILY HOURLY TOTAL
b 1 0 — 2 8	DAILY OPERATOR TOTAL
b 1 0 — 3 1	WEEKLY SALES TOTAL
b 1 0 — 3 2	WEEKLY MACHINE TOTAL
b 1 0 — 3 3	WEEKLY ITEM(ITEM)
b 1 0 — 3 4	WEEKLY ITEM(ITEM) PR.ABC
b 1 0 — 3 5	WEEKLY ITEM(ITEM) WT.ABC
b 1 0 — 3 6	WEEKLY ITEM(ITEM) CT.ABC
b 1 0 — 3 7	WEEKLY ITEM(ITEM) PR.Z
b 1 0 — 3 8	WEEKLY ITEM(ITEM) WT.Z
b 1 0 — 3 9	WEEKLY ITEM(ITEM) CT.Z
b 1 0 — 4 0	WEEKLY ITEM(DPT.)
b 1 0 — 4 1	WEEKLY ITEM(DPT.) PR.ABC
b 1 0 — 4 2	WEEKLY ITEM(DPT.) WT.ABC

MENU NO.	SETTING DESCRIPTION
b 1 0 — 4 3	WEEKLY ITEM(DPT.) CT.ABC
b 1 0 — 4 4	WEEKLY ITEM(DPT.) PR.Z
b 1 0 — 4 5	WEEKLY ITEM(DPT.) WT.Z
b 1 0 — 4 6	WEEKLY ITEM(DPT.) CT.Z
b 1 0 — 4 7	WEEKLY ITEM(GR.)
b 1 0 — 4 8	WEEKLY ITEM(GR.) PR.ABC
b 1 0 — 4 9	WEEKLY ITEM(GR.) WT.ABC
b 1 0 — 5 0	WEEKLY ITEM(GR.) CT.ABC
b 1 0 — 5 1	WEEKLY ITEM(GR.) PR.Z
b 1 0 — 5 2	WEEKLY ITEM(GR.) WT.Z
b 1 0 — 5 3	WEEKLY ITEM(GR.) CT.Z
b 1 0 — 5 4	WEEKLY PROFIT TOTAL
b 1 0 — 5 5	WEEKLY DEPARTMENT
b 1 0 — 5 6	WEEKLY GROUP

7. PLU File (b11)

PLU File is used to prohibit or permit items to be entered into PLU files. Enter desired parameter number for each item, then press □ENTER. After setting, confirm that settings are correct.

⚠ *NOTE:* All Item settings: 0=Not printed; 1: Printed

Menu no.	Setting Description
b11-01	PLU file
b11-02	Commodity Name
b11-03	Price Change
b11-04	Extra Message
b11-05	Coupon
b11-06	Date/Time
b11-07	Store Name
b11-08	Preset Key
b11-09	List
b11-10	Department
b11-11	Group
b11-12	Operator
b11-13	Advertising Message
b11-14	Campaign
b11-17	Machine No.

8. Total Mode Select (b12)

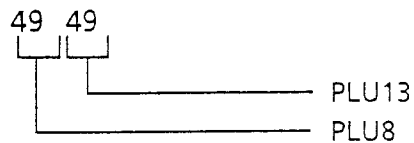*Total Mode Select* is used to set totals mode parameters (Daily, Weekly or Monthly totals). Enter the number corresponding to the desired parameter, then press □ ENTER. After setting, confirm that settings are correct.

⚠ *NOTE:* All Item settings: 0 = Not printed; 1: Printed

Menu No.	Setting description
B12-01	DAILY TOTAL
B12-02	WEEKLY TOTAL
B12-03	MONTHLY TOTAL

9. Password (b13)

Password is used to change the password for Registration, Totals, and Subtraction modes. Enter the 4 digit password, then press □ ENTER.

Menu No.	Default Setting
B13-01	(9000)
B13-02	(8000)
B13-03	(7000)

⚠ *NOTE:* The only value which cannot be entered is "6000".

S5 Test Mode

Test Mode

Sub Menus

1 Hardware Test (c01)

01	A/D Check
02	Key Check
03	Display Check
04	I^2 Net Check
05	Program No.

(c01-**)

01	I^2 Net RAM Check
02	Loop Back Test
03	I^2 Net Program No.

(c01-04-**)

2 RAM Clear (c02)

01	All RAM Clear
02	E^2 RAM Clear
03	Test Set

(c02-**)

3 Thermal Head Setting (c03)

01	Thermal Head Resister
02	Print Usage In Km.
03	Print Density

(c03-**)

4 Sensor Check (c04)

5 Extra Memory (c05)

6 ROM Switch No. Select (c06)

7 Label Format (c07)

8 Sales Mode (c08)

01	Mode
02	CSIS Mode

(c08-**)

9 Node Number (c10)

10 Preset Function Key (c10)

00	No Function Assigned
01	Logo Call Up (Option)
02	Advert. Call Up
03	Store Call Up
04	Coupon Mes Call Up
05	POP Call Up
06	Fixed Price Set
07	Bargain Price Set
08	Discount Price Set
09	% Discount Key
10	Fixed Wt. Set
11	Label Change
12	Std. No. of Items Set
13	Standard Price Set
14	Standard Wt. Set

(c10-**)

99 Data SD/LD (c99)

02	Transfer File
03	Initialize Disk

(c99-**)

01	Select IF21 File No.
02	Send
03	Receive
04	Verify
05	Delete

(c99-02-**)

To Access Test Mode: Turn on the power switch while holding down any key, Test mode will be called up.

S5.2 TEST MODE PROCEDURES

1. Hardware Test (C01)

1.1 A/D Check (C01-01)

This item is used to verify currently set A/D data.

```
ZERO = [ZERO] : SPAN = [TARE] : AREA

4257          4257
```

A/D CONVERSION   A/D CONVERSION   AREA NO.
VALUE   INITIAL VALUE
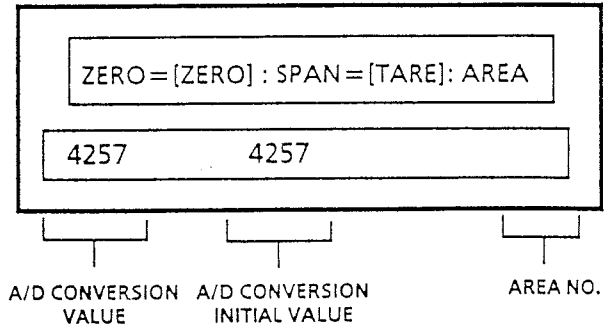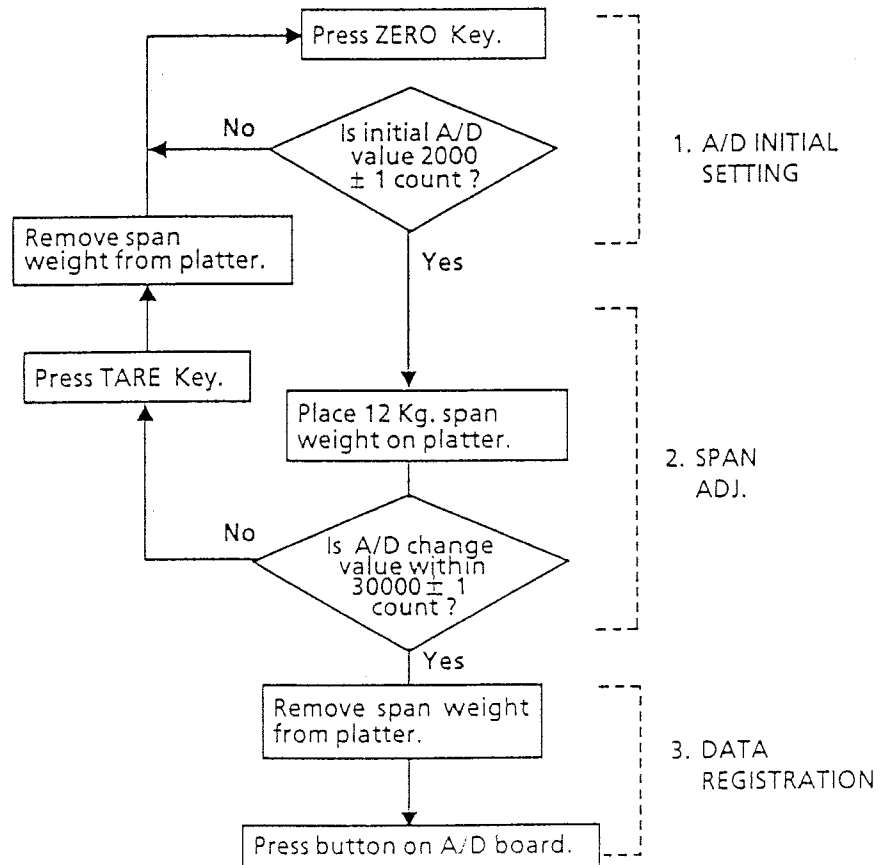
SPAN ADJUSTMENT

1. A/D Initial Value Setting

This item is used to verify currently set A/D data.

■ A/D Initial Value Setting

Press □ZERO.
The A/D conversion value will be displayed in the unit price column.

Check that the value is 2000 ± 1. If it is, perform span adjustment as described below.

If the value is not 2000 ± 1, press □ZERO again.


```
ZERO = [ZERO] : SPAN = [TARE]: AREA

WEIGHT      lb. UNIT PRICE   $/lb.  TOTAL PRICE        $

              0    2000                            09
          ZERO  SET  SAVE  AUTO
```
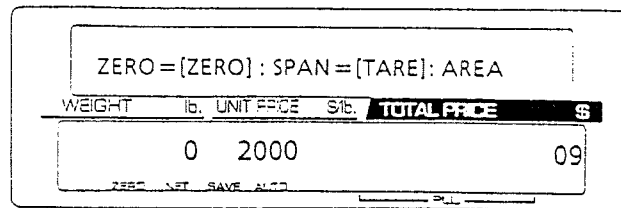
■ Span Adjustment

Place a 12 Kg. span weight on the weigh platter.

The A/D conversion value will be displayed in the weight column.

Check that the value is 30000 ± 1. If it is, perform data registration as described below.

If not 30000 ± 1, press □TARE, remove the span weight and perform A/D adjustment again.


```
ZERO = [ZERO] : SPAN = [TARE]: AREA

WEIGHT      lb. UNIT PRICE   $/lb.  TOTAL PRICE        $

30000                32000                         09
          ZERO  SET  SAVE  AUTO
```
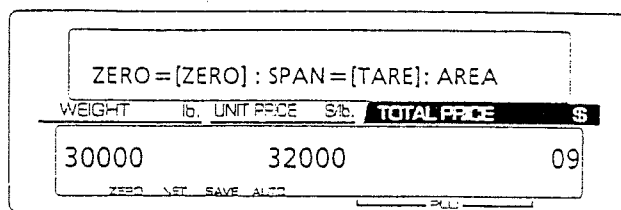
■ Data Registration

This operation writes data onto E2 ROM.

Remove the span weight, then remove the weigh platter.

Strip the stamped seal shown on the diagram at right and remove the cap. From above, press the switch.

CAP
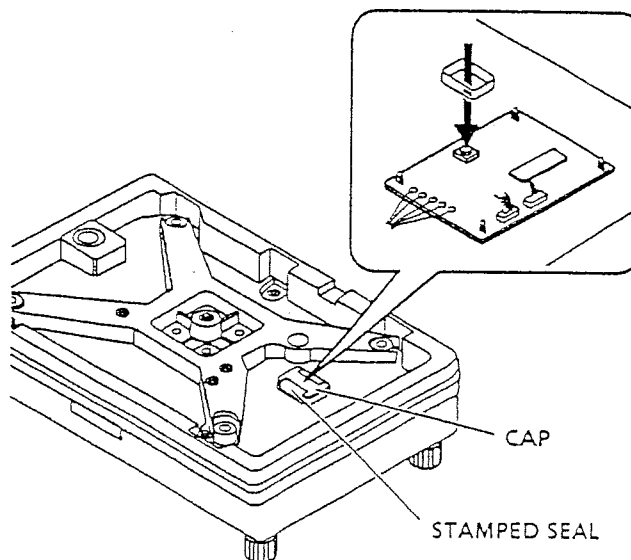
STAMPED SEAL

⚠ *CAUTION!*

• Do not use a screwdriver or other metal tool to press the switch.

• Stamped Seal

If the stamped seal is stripped, it must be replaced with a new official approval stamped seal. Do not remove the stamped seal if not necessary. Stamped seals are required depending on the designated country.

1.2 Key Check (C01-02)

This item is used to verify key data.

```
┌─────────────────────────────────────────┐
│  ┌────────────────────────────────────┐ │
│  │ KEY CHECK              [ENTER]     │ │
│  └────────────────────────────────────┘ │
│  ┌────────────────────────────────────┐ │
│  │ C01-02-00        1             0   │ │
│  └────────────────────────────────────┘ │
└─────────────────────────────────────────┘
```

KEYBOARD   RESET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28		30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
106	107	108	109	119	111	112	113	114	115	116	117	118	119	120

⚠ *NOTE:* Pressing □RESET will return the display to the sub menu.

1.3 Display Check (C01-03)

This item is used to light all segments to check display function.

Press ⊐ENTER to start the display check.

1.4 I2 Net Check (C01-04)

This item is used to verify that I2 Net is functioning normally.

■ I2 Net RAM Check (C01-04-01)

Press □ PRINT twice. Confirm that [PASS] is displayed.

```
┌─────────────────────────────────────┐
│  ┌──────────────────────────────┐   │
│  │ * I2 NET RAM CHECK [PRINT] [OK]│  │
│  └──────────────────────────────┘   │
│  ┌──────────────────────────────┐   │
│  │ C01-04-01              PASS  │   │
│  └──────────────────────────────┘   │
└─────────────────────────────────────┘
```

■ Loop Back Test (C01-04-02)

Press □ PRINT twice. Confirm that [PASS] is displayed.

```
┌─────────────────────────────────────┐
│  ┌──────────────────────────────┐   │
│  │ * LOOP BACK TEST [PRINT] [OK]│   │
│  └──────────────────────────────┘   │
│  ┌──────────────────────────────┐   │
│  │ C01-04-02              PASS  │   │
│  └──────────────────────────────┘   │
└─────────────────────────────────────┘
```

■ I2 Net Program No. (C01-04-03)

The I2 Net Program No. (version) will be displayed.

```
┌─────────────────────────────────────┐
│  ┌──────────────────────────────┐   │
│  │ * I2 NET PROGRAM NO. [PRINT] [OK]│ │
│  └──────────────────────────────┘   │
│  ┌──────────────────────────────┐   │
│  │ C01-04-03              id 4  │   │
│  └──────────────────────────────┘   │
└─────────────────────────────────────┘
```

1.5 Program No. (C01-05)

This item is used to display the ROM version number of the main board.

```
┌─────────────────────────────────────┐
│  ┌──────────────────────────────┐   │
│  │ * MAIN BOARD     Ver B1070   │   │
│  └──────────────────────────────┘   │
│  ┌──────────────────────────────┐   │
│  │ C01-05-00              B1070 │   │
│  └──────────────────────────────┘   │
└─────────────────────────────────────┘
```

3000 Series Label Gap Sensor
Alternate Adjustment Method

1. Turn FINE adjustment knob to center position.
2. Place backing paper only under gap sensor.
3. Turn ROUGH adjustment until the point where the red L.E.D. turns on/off - this is point A.
4. Place label on backing paper under gap sensor.
5. Turn ROUGH adjustment until the point where the red L.E.D. turns on/off - this is point B.
6. Center the ROUGH adjustment between points A and B.

2. RAM Clear (C02)

2.1 All RAM Clear (C02-01)
This item is used to clear all RAM data.

Press □ZERO twice. When all RAM data has been cleared, [PASS] will be displayed.

```
* ALL RAM CLEAR        [OK]

C-02-01                PASS
```

2.2 E²ROM Clear (C02-02)
This item is used to clear all E^2 ROM data.

Press □ZERO twice. When E^2 ROM data has been cleared, [PASS] will be displayed.

```
* E2ROM CLEAR          [OK]

C-02-02                PASS
```

2.3 Test Set (C02-03)
This item is used to write test data to RAM.

Press □ZERO twice. When Test Data has been registered, [PASS] will be displayed.

```
* TEST SET             [OK]

C-02-03                PASS
```

3. Thermal Head (C03)

3.1 Resister (C02-01)

This item is used to set the thermal head resistance value.

Referring to the table below, enter the resistance value according to the displayed data.

Enter the value, then press ☐ ENTER.

```
* RESISTER          [573]

C03-01                573
```

Resistance Value	Entry Value
528~545	537
546~563	555
546~581	573
582~600	591
601~618	609
619~636	627
637~654	645
655~672	663

3.2 Print Usage in Km (C03-02)

This item is used to display in kilometers the amount of thermal head usage.

To clear usage data, enter [0] then press ☐ ENTER.

```
* PRINT USAGE IN Km        (0.0km)

C-03-02                    0.0
```

⚠ *NOTE:*
- When replacing the thermal head be sure to clear the usage data.
- When returning a defective thermal head to the Service Center, please make a notation of the usage distance on the repair invoice.

3.3 Resister Value *ADJ (C03-03)

This item is used to adjust the thermal head print density

Enter the density value *1* (light) ~ *9* (heavy), then press ☐ENTER. Press ☐PRINT to print a test label to confirm correct density. Repeat until satisfactory.

```
*  RESISTER VALUE  *ADJ        [5]

C03-03                          5
```

PRINT SAMPLE
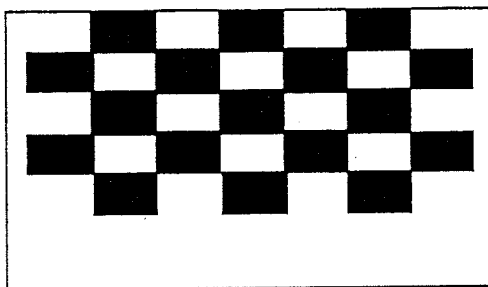
4. Sensor Check (C04)

This item is used to confirm the current peeling sensor value and cassette No.

```
PEEL. (  1)      LABEL (255)

C04-00            1      255
```

⚠ *NOTE:*
• Refer to Chapter 5: *Peeling Sensor Adjustment* for the normal sensor value.

5. Memory Check (C05)

This item is used to confirm the amount of total and remaining memory in kilobytes.

```
*  MEMORY 128(KB)  REMAIN 110 (KB)

C05-00          128          110
```

6. ROM Switch Number Select (C06)

Press □→ then select the ROM Switch No.
Enter the value and then press □ENTER.

```
*  ROM SWITCH NO. SELECT       [--]

C06-01          0000    00    0
```

ROM SWITCH   DATA   ENTERED
NUMBER   VALUE
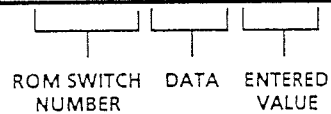
⚠ NOTE:
• Refer to country ROM switch chart for ROM switch number settings.

7. Label Format (C07)

This item is used to change the label printing coordinates.

Press □→ then select the ROM Switch No.
Enter the value and then press □ ENTER.

```
* NO 01 -0:  AXIS POSITION    (0324)

C07-01          0       01      0324
```

0 : X AXIS   UNIT   COORDINATE
1 : Y AXIS   NO.

NOTES:
- To switch X and Y axis, press □ →.
- Reposition graduation is 1 = 0.1mm.

LABEL

Y Axis

Base Points
X = 0
Y = 0

⟶ X Axis
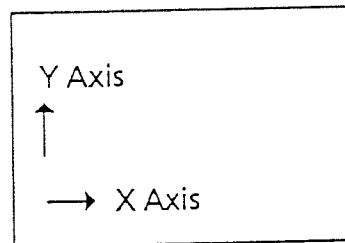
8. Sales Mode (C08)

8.1 Sales Mode (C08-01)

This item is used to set the sales mode most suitable for the user's application.

Enter the number corresponding to the desired mode, then press □ENTER.

```
* MODE   -1: IND, LABEL, W/O TL  (1)

C08-01                    1        1
                          └─┬─┘    └─┬─┘
                          SALES    ENTERED
                          MODE     NUMBER
```

Entry No.	Sales Mode
1	No supermarket operator
2	Supermarket operator

8.2 CSIS Mode (C08-02)

This item defines whether the scale is used as a stand alone unit or is linked to a system as a master or satellite scale.

Enter the number corresponding to the desired mode, then press □ENTER.

```
* CSIS MODE    1: ALONE      (1)

C08-02                 1        1
```

Entry Number	CSIS Mode
1	Alone
2	Master (CSIS)
3	Satellite (CSIS)

⚠ *NOTE:* An optional master board (P-835) must be installed if the scale is to be used as a CSIS master unit.

9. Node Number (C09)

Node Number is used to set the PC identification number when scale is linked to a computer.

Enter the scale's identification number (0~99) and then press ☐ ENTER.

```
* MACHINE ID NUMBER 0~99      (1)

C09-01                         1
```

⚠ *NOTES:*
- An optional master board (P-835) must be installed if the scale is to be linked to a PC.
- The number of master scales which can be linked is determined by the type of level converter used.
- If "0" is entered as the ID No., the scale will be set to Offline.

10. Preset Function Key (C10)

Preset Function Key is used to set the functions of preset keys PF1~PF4.

Press ☐ ↓ to select one of the function keys (PF1~PF4). Enter the number corresponding to the desired function, then press ☐ ENTER.

```
* PF (1)        - O:*           ( 0)

C10-01                  0      0
```

Entry No.	Function Name	Description
0	*	No assigned function
1	LOGO	Call up logo (option)
2	MESSAGE	Call up ad message
3	STORE	Call up store name
4	COUPON	Call up coupon message
5	POP	Call up POP
6	FIX PRICE	Set fixed price
7	DISCOUNT	Set discount
8	−$	Set amount of price reduction
9	−%	Set percent of price reduction
10	FIX WGT.	Set fixed weight

Entry No.	Function Name	Description
11	LABEL	Change label
12	TARGET QTY	Set number of items
13	TARGET PRI	Set price
14	TARGET WGT	Set weight

11. Data SD/LD (C99)

Data SD/LD is used for data communication with an IF-21FD interface unit.

Preparation
Before attempting to transmit data, make sure the DP-3000 is connected to the IF-21FD unit, and the scale and IF-21FD power switches are ON.

⚠ *NOTE:* All IF-21FD operations can be be performed from the DP-3000 side.

11.1 Transfer File (C99-02)
Transfer File is used to transmit individual data files.

11.1.1 Select IF-21 File No. (C99-02-01)

Enter the number corresponding to the desired file number (1~8), then press ☐ ENTER.

```
┌─────────────────────────────────────┐
│ * SELECT   IF21 FILE NO.        (0)  │
└─────────────────────────────────────┘
┌─────────────────────────────────────┐
│ C99-02-01            No 0         0  │
└─────────────────────────────────────┘
```

         FILE   ENTERED
        NUMBER   NUMBER

11.1.2 Send (C99-02-02)

This item is used to transmit data from the scale to an IF-21FD interface unit.

Enter the number corresponding to the file(s) to be sent, then press □ ENTER.

To start transmission, press □ PRINT.

```
┌─────────────────────────────────────┐
│ ┌─────────────────────────────────┐ │
│ │ *  SEND    -1: ALL FILES    (1) │ │
│ └─────────────────────────────────┘ │
│ ┌─────────────────────────────────┐ │
│ │ C99-02-02         No 1       1  │ │
│ └─────────────────────────────────┘ │
└─────────────────────────────────────┘
                              └─┬─┘
                             ENTERED
                             NUMBER
```

Entry No.	File Type
1	All files
2	Master File
3	E^2 ROM File

11.1.3 Receive (C99-02-03)

This item is used to receive data from an IF-21FD interface unit.

Enter the number corresponding to the type of file(s) to be received, then press □ ENTER.

To start reception, press □ PRINT.

```
┌─────────────────────────────────────┐
│ ┌─────────────────────────────────┐ │
│ │ *  RECEIVE-1: ALL FILES     (1) │ │
│ └─────────────────────────────────┘ │
│ ┌─────────────────────────────────┐ │
│ │ C99-02-03         No 1       1  │ │
│ └─────────────────────────────────┘ │
└─────────────────────────────────────┘
                              └─┬─┘
                             ENTERED
                             NUMBER
```

Entry No.	Function	Entry No.	Function
1	All Files	11	Setup File
2	Master File	12	Scroll Message
3	E^{2}ROM File	15	Department
4	Item Master	16	Group
5	Store Master	17	Mixed File
6	Coupon File	18	Unit Price Revision File
7	Ad Message	20	Receipt Bar Code File
8	Operator Master		
9	Preset Key		
10	Label Format		

11.1.4 Verify (C99-02-04)

This item is used to compare IF-21FD and DP-3000 data.

Enter the number corresponding to the file(s) to be compared, then press □ENTER.

To execute, press □PRINT.

```
* VERIFY  -1: ALL FILES        ( 1)

C99-02-04              No 1        1
```

Entry No.	Function	Entry No.	Function
1	All Files	11	Setup File
2	Master File	12	Scroll Message
3	E^{2}ROM File	15	Department
4	Item Master	16	Group
5	Store Master	17	Mixed File
6	Coupon File	18	Unit Price Revision File
7	Ad Message	20	Receipt Bar Code File
8	Operator Master		
9	Preset Key		
10	Label Format		

11.1.5 Delete (C99-02-05)

This item is used to delete all files.

Press □ZERO twice. All files will be deleted.

```
* DELETE                       ( )

C99-02-05              No 1        0
```

DP-3000 · SERVICE · REV 0

11.2 Initialize Disk (C99-03)

Initialize Disk is used to initialize floppy disks.

⚠️ *CAUTION!* Executing *Initialize Disk* will delete all floppy disk data.

11.2.1 Delete file (C99-03-00)

To delete files from the floppy disk, press ☐ DELETE CHAR twice.
To terminate deletion in progress, press any *other key* than ☐ DELETE CHAR.

```
┌──────────────────────────────────┐
│ [?] DELETE FILE  Y=[DEL] : N=[ENT]│
├──────────────────────────────────┤
│ C99-03-00                         │
└──────────────────────────────────┘
```

11.2.2 OK to delete? (C99-03-02)

To execute disk initialization, press ☐ DELETE CHAR.
To terminate deletion in progress, press any *other key* than ☐ DELETE CHAR.

```
┌──────────────────────────────────┐
│ [?] EXECUTE?              [ ]      │
├──────────────────────────────────┤
│ C99-03-02                         │
└──────────────────────────────────┘
```

11.2.3 OK to delete? (C99-03-03)

Disk initialization in progress.

```
┌──────────────────────────────────┐
│ [?] INITIALIZING          [ ]      │
├──────────────────────────────────┤
│ C99-03-03                         │
└──────────────────────────────────┘
```

11.2.4 Complete (C99-03-04)

Disk initialization Completed.

```
┌──────────────────────────────────┐
│ [?] INITIALIZING         [OK]      │
├──────────────────────────────────┤
│ C99-03-04              PASS        │
└──────────────────────────────────┘
```

3000 Series Error Code List

Note: To clear error message from display press **CLR** key.

	OPERATION		
Number	Display	Cause	Solution
1	IMPROPER POSITION. CHECK CASSETTE Err--01	Label cassette not completely inserted in scale.	Reinsert label cassette.
2	CHARACTER OVER Err--02	Too many characters on one line in product description.	Edit product description by removing excess characters per line.
3	POP MESSAGE: OVER CHARACTER Err--03	Too many characters on first line for POP message to print.	Edit product description's first line by removing excess characters.
4	AD MESSAGE:OVER CHARACTER Err--04	Too many characters on one line in Ad message.	Edit Ad message by removing excess characters per line.
6	REG. CODE: OVER CHARACTER Err--06	Too many characters on one line in Reg. Code.	Edit Reg. Code by removing excess characters.
7	STORE NAME/ADDR.: OVER CHARACTER Err--07	Too many characters on one line in Store Name / Address.	Edit Store Name / Address by removing excess characters per line.
8	LABEL END Err--08	! End of label roll. ! Mis-threaded labels.	! Install new label roll. ! Re-thread labels.
9	LABEL SIZE ERROR Err--09	! Incorrect labels installed in scale. ! Label size settings are incorrect. ! Mis-threaded labels.	! Install correct labels. ! Check label size settings. ! Re-thread labels.
10	EXCESS $ ON SCALE ITEM Err--10	Discount price is equal to or greater than the original price.	Check the discount price registration.
11	TABLE STRUCTURE CORRUPTION Err--11	Internal database has become corrupted.	Perform memory clear.
12	MAX ITEM NUMBER OVERFLOW Err--12	Accumulated operator totals have exceeded 30 transactions or $100,000 per operator or 100 total transactions.	Clear operator totals by printing a total label. (Use the TOTAL key).
13	SAME OPR. TOTALING ON MAC. Err--13	Same operator number used within one second.	Wait and restart operation.

3000 Series Error Code List

Note: To clear error message from display press **CLR** key.

	OPERATION		
Number	Display	Cause	Solution
14	OPERATOR IN USE Err--14	Same operator number used within one second.	Wait and restart operation.
17	WEIGHT IS OVER LIMIT Err--17	Package exceeds programmed upper weight limit.	! Remove package from scale. ! Change weight limit.
18	WEIGHT IS BELOW LIMIT Err--18	Package does not reach programmed lower weight limit.	! Remove package from scale. ! Change weight limit.
19	LABEL REMAINING ON APPLICATOR Err--19	Label cannot be printed until previous label is removed from label applicator.	! Remove label from applicator. ! Check/clean label sensor.
20	WEIGHT EXCEEDS CONVEYOR CAP. Err--20	Package weight is more than 10 pounds.	! Reduce weight of the package. ! Change to Manual weighing/labeling with the PREPACK
40	MEMORY NOT INITIAL SET Err--40	Memory in "FAT" area has been corrupted.	Re-initialize all memory including RAM and E2ROM.
42	SYSTEM ERROR Err--42	Malfunction in main program: does not start up.	! Check possible CPU board failure. ! Check firmware chips.
43	E2ROM NOT INITIAL SET Err--43	Memory in E2ROM has been corrupted.	Re-initialize with E2ROM clear.
50	NO POWER SCALE Err--50	A/D board is disconnected or malfunctioning.	! Check A/D board cabling. ! Replace A/D board.
51	SCALE ERROR Err--51	NV RAM (calibration data) in A/D board has been corrupted.	Recalibrate scale.
56	REMOVE ITEM ON THE PLATTER Err--56	Scale is unstable or was powered up with some object on the platter.	Remove internal/external cause of instability.
57	REMOVE ITEM ON THE PLATTER Err--57	Scale was powered up with some object on the platter.	Power up the scale with nothing on the platter.

3000 Series Error Code List

Note: To clear error message from display press **CLR** key.

OPERATION			
Number	Display	Cause	Solution
66	MEMORY AREA OVERFLOW Err--66	Transaction results cannot be written in to memory due to corruption of Totals area. Incorrect Memory clear procedure. Incorrect Master Satellite setup procedure Noise from RS-232 communications with PC.	! Clear scale totals. ! Power scale off after RAM clear - do <u>NOT</u> use RESET key. ! Re-initialize Master - Satellite system. (Refer to Tech Bulletin #TB961217 for correct procedure.)
68	RESEND RESULT DATA Err--68	Unsuccessful transmission of transaction results to Total area of memory.	! Press **PLU** key to resend data. ! Press **VOID** key to cancel transmission.
203	PRINTER POWER-OFF OR NOT CONNECT Err--203	No communication with second printer at initial power up of main unit.	!Turn on second printer unit <u>before</u> main unit. !Check cabling between printers.
204	PRINTER COMMUNICATION ERROR Err--204	No communication with second printer.	!Check power at second printer. !Check cabling between printers.
----	CHARACTER BUFFER OVER	Too many characters per PLU.	Check PLU name registration area.
----	CHARACTER DOTS OVER	Too many characters per line.	Check PLU name registration area.

3000 Series Error Code List

Note: To clear error message from display press **CLR** key.

SYSTEM COMMUNICATIONS			
Number	Display	Cause	Solution
9300	SYSTEM ERROR (CHECK CABLE) Err--oFFLin	! Master Board malfunction. ! Faulty cable connections.	! Check Master Board, replace if necessary. ! Check all cable connections.
9305	SAME OPR. TOTALING ON MAC. Err--9305	Same operator number used within one second.	Wait and restart operation.
9307	SAME OPR. PROCESSING ON OTHER Err--9307	Same operator number used within one second.	Wait and restart operation.
9309	ERROR ON COMM. CROSSOVER Err--9309	Data transfer duplication error - same data was sent twice.	Press **CL** key to reset.
9311	MAX ITEM NUMBER OVERFLOW Err--9311	Accumulated operator totals have exceeded 30 transactions or $100,000 per operator or 400 total transactions.	Clear operator totals by printing a total label. (Use the TOTAL key).
9316	MASTER IS OFF LINE Err--9316	! Master scale is Off Line. ! Master scale is in Totals Mode or Test Mode.	Return master scale to On Line mode.
9330	COMM. ERROR ON RESULT TRANSFER Err--9330	Satellite cannot report Totals data back to Master scale.	! Check Master Board, replace if necessary. ! Check all cable connections.
9330	SYSTEM ERROR (CHECK MASTER SCALE) Err--9330	Satellite does not receive requested data from Master Board.	! Check Master Board, replace if necessary. ! Check all cable connections.

3000 Series Error Code List

Note: To clear error message from display press **CLR** key.

SAVE & LOAD WITH IF-21FD FLOPPY DISK UNIT			
Number	Display	Cause	Solution
2	Err 2	Floppy disk does not verify.	! Reload data to/from disk. ! Create new master disk.
3	Err 3	! No disk in IF-21FD floppy disk recorder. ! Bad IF-21FD disk drive.	! Install DS, DD floppy disk into recorder. ! Repair IF-21FD.
4	Err 4	Cannot record to floppy disk because it is write protected.	Switch write protect tab on the disk to correct position.
5	Err 5	! Attempting to over write an existing file on floppy disk. ! Attempting to receive, verify, or delete a nonexistent file on floppy disk.	! Select an unused file number. ! Select an existing file number.
6	Err 6	IF-21FD floppy disk unit not configured correctly.	! Check that only dip switches 2 and 5 are in the down position. ! Check that the IF-21FD has the latest firmware version (J-209N). ! Use 9-pin cable, not 25-pin cable.
7	Err 7	Parity error in communication protocol.	Check scale CPU board.
8	Err 8	Floppy disk memory overflow.	! Restart with a blank floppy disk. ! Erase unused files from floppy disk.
9	Err 9	Operation error.	Begin SAVE/LOAD procedure again following correct procedure. (Refer to service manual if needed).
10	Err 10	Floppy disk format error.	Reformat floppy disk.
66	Err 66	! Data on disk is corrupted. ! File is too large for scale memory. ! Scale memory is corrupted.	! Create new master disk. ! Reduce file size and reload in to scale's memory. ! Clear scale memory, reload disk.
73	Err 73	! IF-21FD floppy disk recorder not connected. ! Incorrect disk format.	! Power off scale and connect IF-21FD floppy disk recorder. ! Reformat floppy disk.