DP-6700 Technical Manual

Digital Platform Scale

(US Version)

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YCO-201008

DP-6700 Technical Manual

Table of Contents

* This manual is divded into several chapters that discuss specfic topics

Chapter 1 Adjustment method

1.1 Basic specifications (dimensions and capacity)

(1) The DP-6700 series supports two types of power sources - 6VDC (D-Series batteries) and optional AC adaptor.

(2) The dedicated AC adaptor must be used.

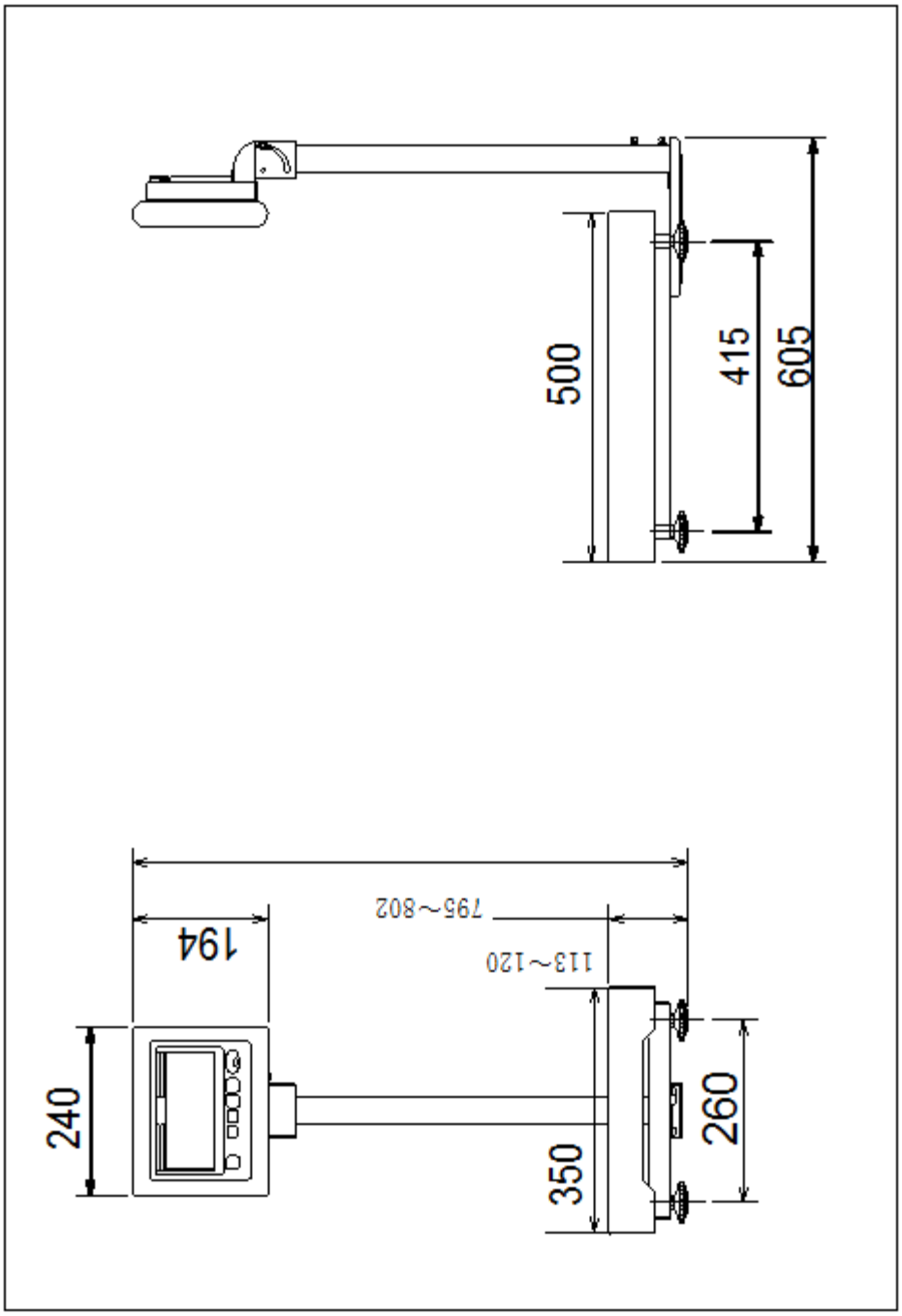
NOTE: To prevent leakage of battery fluid, never use the AC adaptor in combinatin with the batteries

Name of product	Digital Platform Scale		
Model	DP-6700		
Weighing capacity	30kg/ 60lb/ 960oz	60kg/ 150lb/ 2400oz	150kg/ 300lb/ 4800oz
Increment	0.01kg/ 0.02lb/ 0.5oz	0.02kg/ 0.05lb/ 1.0oz	0.05kg/ 0.1lb/ 2.0oz
Maximum tare	Up to capacity		
Precision	1/3000		
Weight (main body)	13kg		
Weighing system	Strain-gauge load cell		
Product dimensions	350(W)×607(D)×795(H) mm		
Weighing platform dimensions	500(W) × 350(D)mm		
Range of operating temperature	-10°C to +40°C, 30% to 85% R.H.(no condensation)		
Waterproof/dustproof classification	IP65		
Display panel size	LCD main display panel: 23.5(W) × 45(H) mm, max. 5 digits		
Power supply	D-size batteries x4 (excluded), dedicated AC adaptor (option)		
Power consumption	0.07W		
Battery life	Approx. 1400 hours for continuous use (alkaline dry battery)		
Communication option	Wireless communication, USB memory		

Chapter 1 Adjustment method

1.2 Appearance and name section

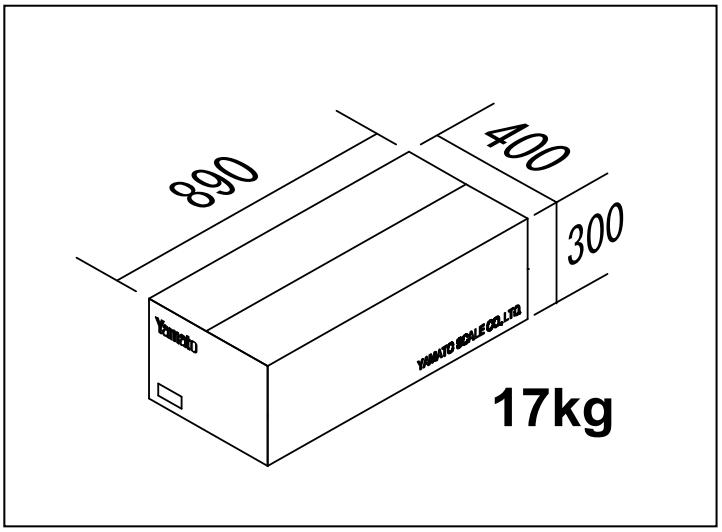
1.2.1 Appearance and names of sections

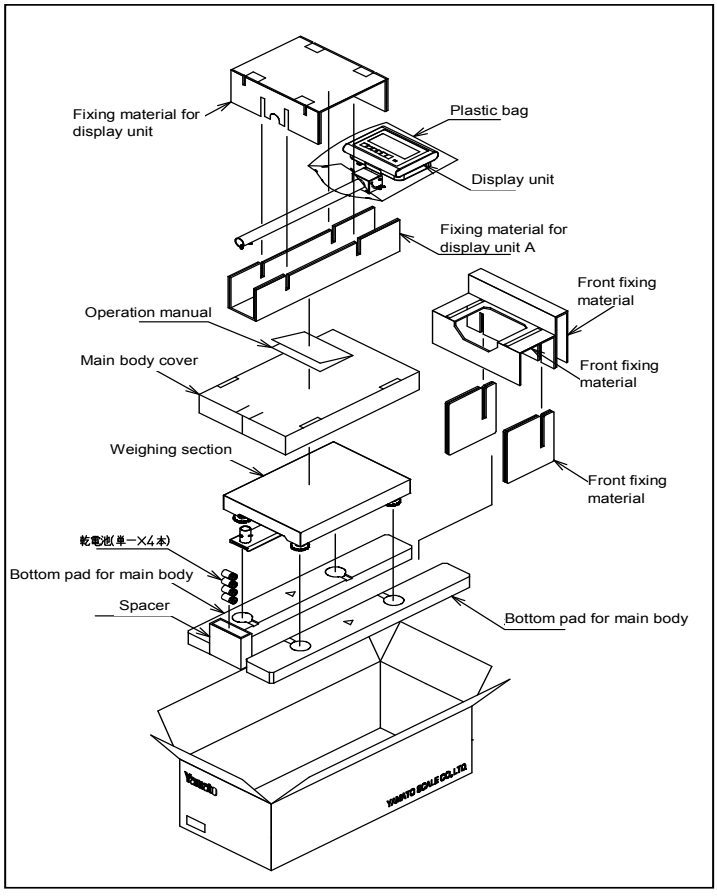


Chapter 1 Adjustment method

1.2.2 Package dimensions and packing methods

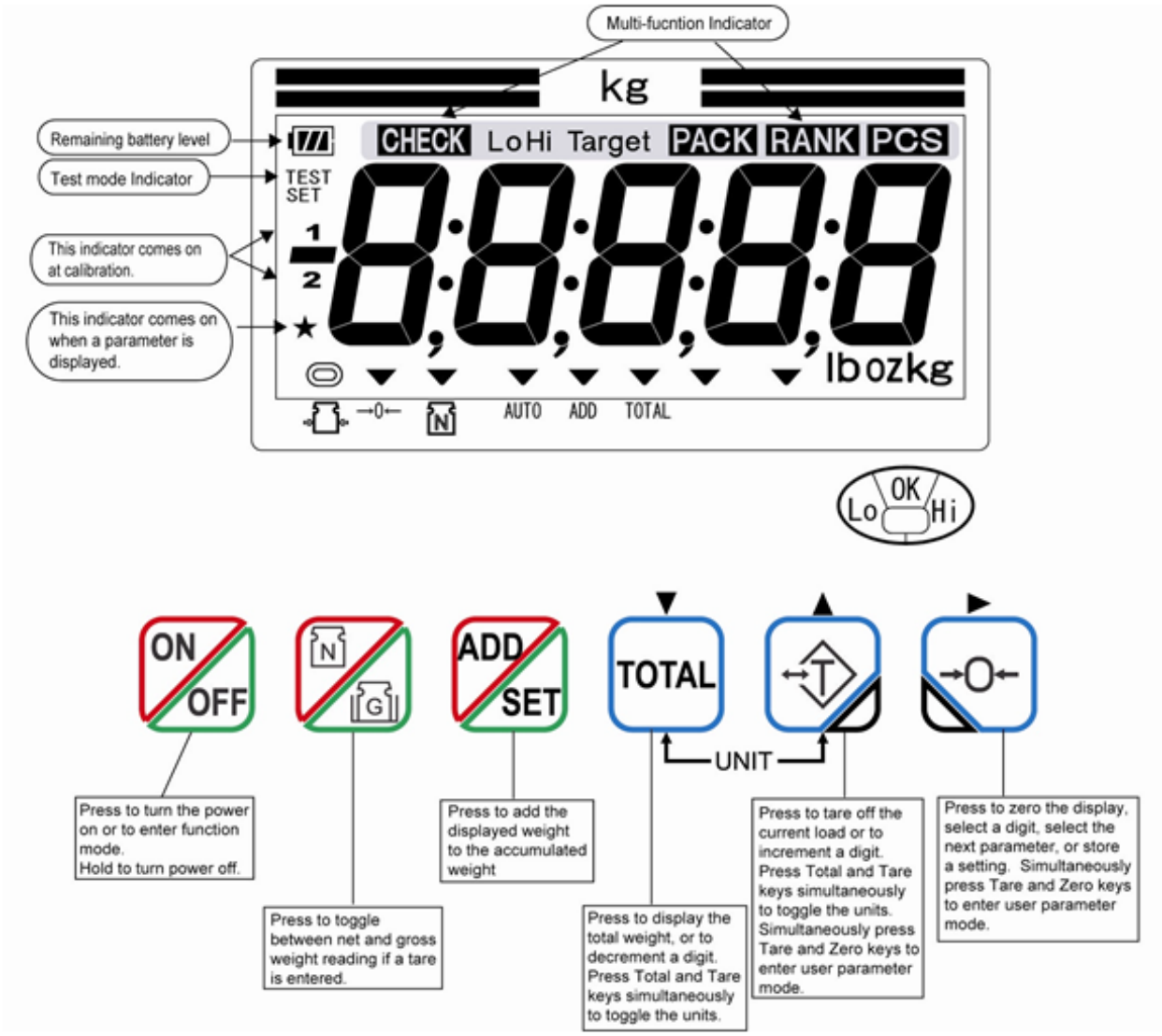
The following package demensions, weight and packing methods are those for standard products





Chapter 1 Adjustment method

1.2.3 Display unit and key operation

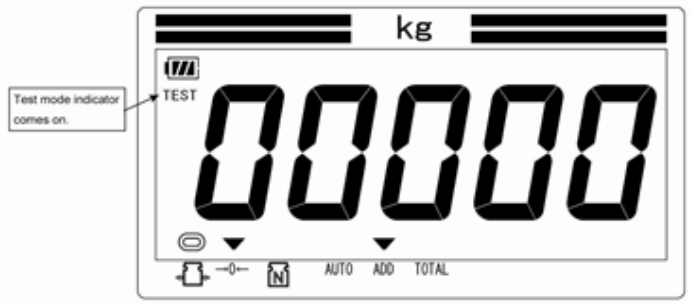


Chapter 1 Adjustment method

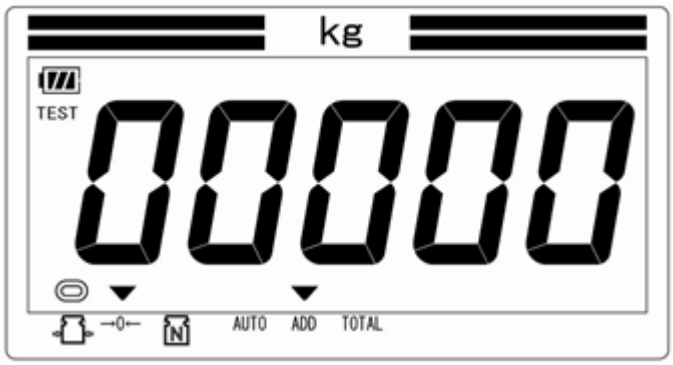
1.3 How to enter test mode and adjustment method

1.3.1 How to enter test mode and meanings of panel indications

NOTE: In case of verified model, it is necessary to break the seal before accessing a deep-set switch. Once breaking the seal, the verification become invalid

After removing the battery box lid, push a deep-set switch indicated by allow with a pin to enter test mode.	
In test mode, the internal count is displayed and “TEST” indicator lights up.	

1.3.2 How to display internal count - Figure. 1-1 Display in Test mode

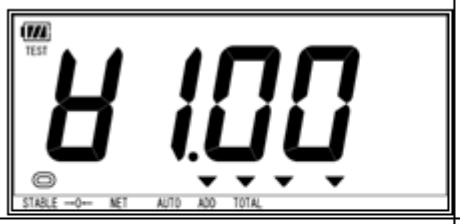


Chapter 1 Adjustment method

In test mode, the following types of the internal count are displayed. When the key is pressed, the interal count, power supply voltage, display cheeck and others are cyclically shown on the panel in the following order.

	Indication	Description	Procedure
↓	1. Internal Count 	It applies an accuracy of 10 times higher than the increment used in normal mode. It displays up to 30,000 counts as the weighing capacity.	• **This appears first in test mode.** • This appears when the key is pressed once in Display Check mode.
↓	2. Initial Value 	It displays the load without anything placed on the weighing platform as the value of the internal count. The value changes if a zero point reset or zero tracking is performed while the internal count is shown on the panel.	This appears when the key is pressed once while the internal count is shown on the panel.
↓	3. Raw Count 1 	It displays a value obtained as a result of AD conversion.	This appears when the key is pressed once while an initial value is shown on the panel.
↓	4. Raw Count 2 	It displays a value obtained as a result of averaging the above-mentioned Raw Count 1.	This appears when the key is pressed once while a raw count 1 is shown on the panel.
↓	5. Power Supply Voltage 	It displays an input voltage from batteries or AC adaptor after it has been AD converted in CPU.	This appears when the key is pressed once while a raw count 2 is shown on the panel.

Chapter 1 Adjustment method

↓	6. Version 	It displays ROM version of the software.	This appears when the key is pressed once while a power supply voltage is shown on the panel.
↓	7. Display Check 	It displays all the segments of LCD.	This appears when the key is pressed once while a version is shown on the panel.

1.3.3 How to set parameters and their meanings

The parameters are divided into 3 groups, **"User Parameter," "System Parameter"** and **"Factory Parameter."**

In test mode, you can switch to any of the parameter modes.
In normal mode where a weight is displayed, only the user parameters can be changed. You must turn off the power to exit parameter mode.

(1) User Parameter Mode (to configure communication functions, multifunction, and others)
Related page: **Page 1-10**
(2) **System Parameter Mode (to set stability detection and others)**

The user parameters and intended for users to change the functions of the scale according to the user specifications. The following parameters from 01 to 29 and d0 to F0 can be set, confirmed and changed

When replacing the CPU board, make sure to check if the parameter settings are correct referring to the parameter list.

Chapter 1 Adjustment method

User Parameter

No.	Item	Value	Function
1	Function Select	000: 001: 002: 003: 004:	Suspend Functions (Default) Fixed Weighing (Packing) Check Weighing Grading Counting
2	Number of Grading Ranks	000: 000-015:	Suspend Functions 006 (Default)
3	Buzzer *Valid at packing & Check Weighing	000: 001: 002: 003: 004:	No Sound (Default) Beep at Under Weight Beep at Acceptable Weight Beep at Over Weight Beep at Under & Over Weight
4	Judgment for Grading (LED) Judgment for Checking weighing (Buzzer) #03 ≠ 0	000: 001:	Judgment even at instability Judgment even at Stability Only
5	Auto-Off Timer *Only for Battery Operation	000: 001: 002: 003: 004: 005:	No Auto-Off 5 Minutes After No Use 10 Minutes After No Use 15 Minutes After No Use 30 Minutes After No Use 60 Minutes After No Use
7	Flicker of Weight Display	000: 001: 002: 003: 004: 005:	No Flicker (Default) Flicker at Under Weight Flicker at Acceptable Weight Flicker at Over Weight Flicker at Under & Over Weight Flickers according to the Parameters #03. Settings
8	Grading Method	000: 001: 002: 003:	Additive (Normal) Grading Subtractive Grading (Default) Additive Matrix Combination (Option) Subtractive Matrix Combination (Option)
9	Gravity Compensation (Depnding on #47)	000: 001-029: 030-210:	No Compensation Prohibit to Set (Acceleration of Gravity (m/s2) - 9.7600) X 10000/5 +30 (offset)
10	Scale ID (For option)	000-099:	000 (Default)
10	Communication Mode	000: 001: 002: 003: 004: 005:	No Communication Automatic Sending / Addition at Being Stable Automatic Sending/ Addition after Removal Manual Sending/ Addition by "ADD" key (Default) Continuous Sending For Optional Function Automatic Sending/ Addition at Acceptable Weight
11	Communication Method	000: 001: 002: 003: 004: 005: 006:	Bluetooth Wireless Communication ZBee Wireless Communication RS232C Output USB Memory Bluetooth Wireless Printer Addition (No Communication) (Default) Auible Grading
13	Communication Data	000: 001: 002:	Net Weight Once (Default) Net. Tare and Gross Weight Once Net and Tare Weight Once

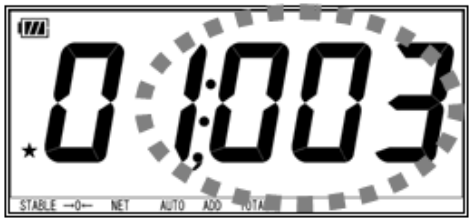
Chapter 1 Adjustment method

User Parameter

15	Communication Speed *Valid at #13 = 002	000: 001: 002: 003: 004: 005:	9600 bps (Default) 2400 bps 4800 bps 9600 bps 19200 bps 38400 bps
16	Character Length *Valid at # 13 = 002	000: 001:	8 Bits (Default) 7 Bits
17	Parity *Valid at # 13 = 002	000: 001: 002:	No Parity (Default) Odd Parity Even Parity
18	Stop Bit *Valid at # 13 = 002	000: 001:	1 Bit 2 Bit
19	Print	000: 001:	No Designation (Default) Only Total Weight is printed
23	Send Display During Transfer	000: 001-008:	No Function Displaying "Send" for the designated time 001 (Default)
24	Unit at Power On *Valid at #41 = 002	000: 001: 002: 003:	kg(g) lb oz lb:oz
25	Brightness of LED Lamp	000: 001: 002:	Low/Dull (Default) Middle High/ Keen
26	Date & Time for Communication	000: 001:	No Date and Time are Sent Date and Time are Sent
27	Setting Value Print for Multi-Function	000: 001:	No setting Value is Printed Setting Value is Printed
28	Paper Feed	000: 001-015:	No Paper Feed (Default) The Designated Lines are Fed Automatically
29	Printing Character	000: 001:	Chinese Character Alphabet
C3 (123)	Zero Addition	000: 001:	No Adding with the indication being 0 Adding even if the indication is 0
do- #F1	Setting for Audible Grading	000-014:	Do Not Change

Chapter 1 Adjustment method

How to Set User Parameters

Prodcedure	Indication
How to switch to User Parameter Mode: There are the following two ways to switch to user parameter mode: ① In normal mode, press the →0← key while holding down the ◁▷ key; and switches to user parameter mode. ② The user parameters can also be set in dealer parameter mode that will be described later See (2) System Parameter Mode (to set stability detection and others) on Page 1-10 for how to set the dealer parameters.	
Going to the next parameter: Press →0← key to go to the next parameter. To change the setup vaue, enter a new value and go to the next parameter. Make sure to go to the next parameter to enable the new value. If you exit before moving to the next parameter, the system discards the entered value.	
Going back to the previous parameter: To go back to the previous parameter, press the TOTAL key while holding down the →0← key.	
+1 operation for parameter value: Press the ◁▷ key to increment the parameter value by 1. If the value exceeds the setting range, the value returns to 0	
-1 operation for parameter value: Press the TOTAL key to decrement the parameter value by 1 (or increment it by -1) If the current setup is 0, the maximum value appears.	

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+10 operation for parameter value: Press the TOTAL key while holding down the ◁T key to increment the parameter value by 10. If the setting range of the parameter is less than 10, "0000" stays on the panel in spite of the operation.	
-10 operation for parameter value: Press the ◁T key while holding down the TOTAL key to decrement the parameter value by 10 (or increment it by -10). If the settings range of the parameter is less than 10, the maximum setup limit for the parameter stays on the panel in spite of the operation.	

(2) System Parameter Mode (to set stability detection and others)

Related page: Page **1-15 1.3.1 How to enter test mode and meanings of panel indications**

System parameter mode is used to change dealer parameters such as stability detection. The following parameters from 30 to 39 and B1 to C3 can be set, confirmed and changed.

In this mode, (1) user parameters fromt 01 to 29 can be set, confirmed and changed.

To switch to dealer parameter mode, you must switch to test mode first. See **1.3.1 How to enter test mode and meanings of panel indications** on Page **1-5** for switching to test mode.

When you replace the CPU board, make sure to check if the parameters settings are correct, referring to the parameter list.

System Parameters

No.	Item	Value	Function
30	System ID	016:	Prohibit to Change
31	Stable - State Sampling Count	000-015:	*Use the time of "setting value X 2"
32	Stable - State Count	000-050:	
33	Very Stable - State Count	000-050:	
34	Stable - State Releasing Count	000-050:	
35	Stable - State Average Count	000-015:	
37	Data Accumluation at Multi-Function	000: 001:	No Data Accumulation Data Accumulation
38	Local Multi-Function setting during communication	000: 001:	Editable No Editable
39	Skip in Reading on Display	000: 001-015:	Skip in Reading Disable Skip in Reading at specified

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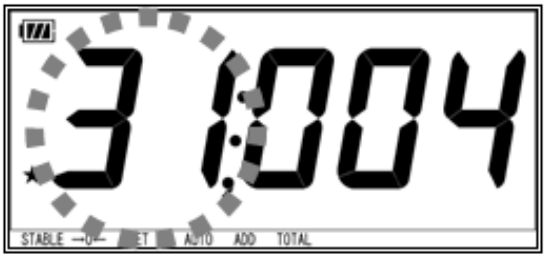
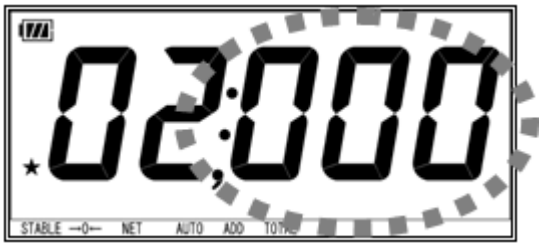
No.	Item	Value	Function
B1(111)	Moving Average Filter 1	000-0008:	Moving Average Tap NO. (Invalid Less Than 2)
B2(112)	Moving Average Filter 2	000-0008:	Moving Average Tap NO. (invalid Less Than 2)
B3(113)	Moving Average Filter 3	000-0016:	Moving Average Tap NO. (invalid Less Than 2)
B4(114)	Moving Average Filter 4	000-0016:	Moving Average Tap NO. (invalid Less Than 2)
C0(120)	Load / Unload Judge	004-255:	
C1(121)	Buzzer at Data Transmission	000: 001:	No Sound Sound
C2(122)	One-Time Addition	000: 001:	Addition any numbers of times One-Time Addition

How to Set System Parameters

Description	Indication
Display the internal count in test mode, referring to **1.3.1 How to enter test mode and meanings of panel indications** on Page **1-5.** When the internal count is shown on the panel, press the [◇] key while holding down the [→0←] key; and it switches to dealer mode.	
Going to the next parameter: Press [→0←] key to go to the next parameter. To change the setup value, enter a new value and go to the next parameter. Make sure to go to the next parameter to enable the new value If you exit before moving to the next parameter, the system discards the entered value.	
Going back to the previous parameter: To go back to the previous parameter, press the [TOTAL] key while holding down the [→0←] key.	
+1 operation for parameter value: Press the [◇] key to increment the parameter value by 1. Keeping the [◇] key down for a while automatically increments the parameter value by 1 continuously If the value exceeds the setting range, the value returns to 0.	

Chapter 1 Adjustment method

- operation for parameter value: Press the TOTAL key to decrement the parameter value by 1 (or increment it by -1) Keeping the TOTAL key down for a while automatically decrements the parameter value by 1 continuously. If the current setup value is 0, the maximum value appers.	
+10 operation for parameter value: Press the TOTAL key while holding down the → key to increment the parameter value by 10. If the settings range of the parameter is less than 10. "000" stays on the panel in spite of the operation.	
-10 operation for parameter value: Press the → key while holding down the TOTAL key to decrement the parameter value by 10 (or increment it by -10). If the setting range of the parameter is less than 10, the maximum setup limit for the parameter stays on the panel in spite of the operation.	
Returning to test mode: Press the → key while holding down the →0← key, and it returns to test mode. Note: Turn off the power and restart to make changes effective.	

(3) Factory Parameter Mode (to set increment, area, default values and others)

Related pages: Page **1-5 1.3.1 How to enter test mode and meanings of panel indications**
Page **1-22 1.3.6 Span adjustment (calibraton)**

System parameter mode is used to change the parameters that determine the specifications of the scale. The following parameters from 40 to B8 can be set, confirmed and changed. To switch to system parameter mode, you must switch to test mode first. See **1.3.1 How to enter test mode and meanings of panel indications** on Page **1-5** for switching to test mode. When you replace the CPU board make sure to check the correctness of the parameters, referring to the parameters table.

Chapter 1 Adjustment method

Factory Parameter

No.	Item	Value	Function
40	Gravity Compensation	000: 001-029: 030-210:	No Compensation Compensation for a specified area (Japan Only) (Acceleration of Gravity (m/s2) - 9.7600) x 10000/5 + 30 (offset)
41	Scale Mode	000: 001: 002: 003-007:	Fixed single increment Multi-Increments YCO Mode Prohibit to set
42	Multi-Increments, Complex Increment Mode	000: 001: 002: 003: 004: 005: 006:	Fixed single increment Fixed accuracy, 3 Capacities Fixed accuarcy, 2 Capacities Increment change at 50% FS, 2 Capacities Increment change at 80% FS, 2 Capacities Increment change at 64% FS, 2 Capacities Increment change at 40% FS, 2 Capacities
43	Weighning Capacity Mantissa	000-099:	
44	Weighing Capacity Index	001-004:	
45	Increment of Small Capacity	000: 001: 002: 003: 004: 005: 006: 007:	1 2 5 10 20 50 100 200
46	Location of Decimal Point	000: 001: 002: 003: 004:	0 0.0 0.00 0.000 0.0000
47	Testing for Certification	000: 001:	Verified Not Verified
50	Calibration with lb weight	000:	
51	lb: Weighing Capacity Mantissa	000-099:	
52	lb: Weighing Capacity Index	001-004:	
53	lb: Location of Decimal Point	000: 001: 003:	0 0.0 0.00 0.000
54	lb: Increment	000: 001: 002: 003: 004: 005: 006: 007:	1 2 5 10 20 50 100 200

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55	oz: Weighing Capacity Mantissa	000-099:	Specified by Pound (oz = lb* 16)
56	oz: Weighing Capacity Index	001-004:	
57	oz: Location of Decimal Point	000: 001: 002: 003:	0 0.0 0.00 0.000
58	oz: Increment	000: 001: 002: 003: 004: 005: 006: 007:	1 2 5 10 20 50 100 200
60	Comma Display	000: 001:	Decimal Point Comma
61	Weighing Unit (g Mode)	000: 001: 002:	None g kg
62	Weighing Unit Display	000: 001:	No unit display Unit display
65	Internal Resolution	000: 001-255	Prohibit to set (scale function invalid) Normal Setting = 010
66	ADC Self Calibration ADS1225IRGVT	025: Except 025	Valid Invalid (Prohibit to set)
67	ADC Cutoff Bit No.	000-003: 004-007	Set at 6 Automatically
68	Over scale	000-100	
70	Zero point range (% for full capacity)	000-100	Set zero point range in % for full scale
71	Zero point range / plus side (%)	000-100	Value on plus side within the setting range on #70
72	Tare clear by reset key	000: 001:	Not clear tare value by pressing zero reset key Clear tare value by pressing zero reset key
73	Zero tracking timing	000: 001-015:	No zero tracking Zero tracking at the specified interval (Count)
74	Tare Function	000: 001: 002:	No tare function One-time tare Consecutive tare
75	Zero reset under tare operation	000: 001:	Valid Invalid
76	Simple combination function	000: 001:	Invalid Valid
77	Simple test mode	000: 001: 002: 003: 004: 005:	Entered by key operation only (Test pin is invalid) Entered by key operation only, user parameter is invalid Entered by key operation & test pin Entered by key ope. & test pin, user parameter is invalid Entered by test pin only (Key ope. is invalid) Entered by test pin only, user parameter is invalid

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79	Raise precision of increment	000: 001:	Invalid Valid
80	Data Transmission at simple combination function	000: 001:	Not send Send displayed value
81	Fixed weighing function	000: 001:	Invalid Valid
82	Checkweighing function	000: 001:	Invalid Valid
83	Grading function	000: 001:	Invalid Valid
84	Counting function	000: 001:	Invalid Valid
85	Display hold function	000: 001:	No display hold function Display hold function (Range depends on #C 0)
86	Time of display hold	000: 001-015:	Release display hold around "0" Display hold around "0" for specified time
87	Adding weight operation under display hold function	000: 001-005:	Invalid Update the wieght indication when more than the specified divisions are changed
88	Time delay for span adjustment	000: 001-015:	No time delay Get a span value after the specified time (sec)
90	Mechanical Zero 1	000-255:	Automatically set at span adjustment (Prohibit to change)
91	Mechanical Zero 2	000-255:	Automatically set at span adjustment (Prohibit to change)
92	Mechanical Zero 3	000-255:	Automatically set at span adjustment (Prohibit to change)
93	Span coefficent 1 (small)	000-255:	Automatically set at span adjustment (Prohibit to change)
94	Span coefficent 2 (small)	000-255:	Automatically set at span adjustment (Prohibit to change)
95	Span coefficent 3 (small)	000-255:	Automatically set at span adjustment (Prohibit to change)
96	Span coefficient 1 (middle)	000-255:	Automatically set at span adjustment (Prohibit to change)
97	Span coefficient 2 (middle)	000-255:	Automatically set at span adjustment (Prohibit to change)
98	Span coefficient 3 (middle)	000-255:	Automatically set at span adjustment (Prohibit to change)
99	Span adjustment zone	000-210:	Automatically set at span adjustment (Prohibit to change)
A0(100)	Board sensitivity adjustment 1	000-255:	Automatically set at board sensitivity adjustment (Prohibit to change)
A1(101)	Board sensitivity adjustment 2	000-255:	Automatically set at board sensitivity adjustment (Prohibit to change)
A2(102)	Board sensitivity adjustment 3	000-255:	Automatically set at board sensitivity adjustment (Prohibit to change)
A3(103)	Span coefficient 1 (Large)	000-255:	Automatically set at span adjustment (Prohibit to change)
A4(104)	Span coefficient 2 (Large)	000-255:	Automatically set at span adjustment (Prohibit to change)
A5(105)	Span coefficient 3 (Large)	000-255:	Automatically set at span adjustment (Prohibit to change)
A6(106)	Span adjustment zone	000-255:	Automatically set at span adjustment (Prohibit to change)
A7(107)	"lb:oz" Display	000: 001:	Valid "lb:oz" display Invalid "lb:oz" display
A8(108)	LED external output	000: 001:	Invalid Valid
A9(109)	Transmission for TDW	000: 001:	Continuous transmission at #11 = 004 Transmission every stable at #11 = 004 (For TDW)

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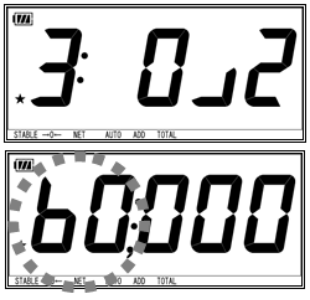
B0(110)	Factory setting	000: 001: 002: 003: 004: 005: 006: 007:	Not use default setting DP-6700 30kg/10g, 1/3000, Verified Model DP-6700 60kg/20g, 1/3000, Verified Model DP-6700 150kg/50g 1/3000, Verified Model DP-6700 150g/100g, 1/1500, Verified Model DP-6700 30kg/10g, 1/3000, Non-Verified Model DP-6700 60kg/20g, 1/3000, Non-Verified Model DP-6700 150kg/50g, 1/3000, Non-Verified Model
B5(115)	Transmission of ad value	000: 001: 002: 003: 004:	Not send Raw (2 batches average) + 4th filtering Raw (2 batches average) + Final filtering 4th filtering + Final filtering 4th filtering + Final filtering at very stable - 20
B6(116)	Input judgment of filter "L" at stable	000-255	By 0.01% for capacity
B7(117)	Input convergence of filter "S" at stable	000-015:	By 0.01% for capacity
B8(118)	Input difference of filter "S" at stable	000-015:	By 0.01% for capacity
B9(119)	Auto tare delay, subtracting grading	000-099:	Delay time (x10ms)
C7(127)	Keyboard tare	000: 001:	Keyboard tare is invalid Keyboard tare is valid
C8(128)	Recommended calibration method	002: 003: 004: 005: 006: 007:	Using 2 points - zero point and full capacity Using 3 points - zero, 1/2 cap, and full capacity Using 4 points - zero, 1/2 cap, full cap and 1/2 cap on return Using 4 points - zero, 500 increments, 1/2 cap and full cap Using 4 points - zero, 500 increments, 2/3 cap and full cap Using 4 points - zero, 1/3 cap, 2/3 cap and full cap
C9(129)	Store display hold mode	000-001:	Memorize display mode and revert to current status at power on next time

How to Set Factory Parameters

Description	Indication
Display the internal count in test mode referring to 1.3.1 How to enter test mode and meanings of panel indications on Page 1-5. When the internal count is shown on the panel, press the TOTAL key while holding down the →0← key; and it switches to span adjustment mode. (See 1.3.6 Span adjustment (calibration) on Page 1-22) In span adjustment mode, press →0← key while holding down the →T← key; and it switches to system parameter mode.	
Going to the next parameter: Press the →0← key to go to the next parameter. To change the setup value, enter a new value and go to the next parameter. Make sure to go to the next parameter to enable the new value. If you exit before moving to the next parameter the system discards the enter valve	

Chapter 1 Adjustment method

Going back to the previous parameter To go back to the previous parameter, press the [TOTAL] key while holding down the [→0←] key.	
+1 operation for parameter value: Press the [→T] key to increment the parameter value 1. Keeping the [→T] key down for a while automatically increments the parameter value by 1 continuously If the value exceeds the setting range, the value reutrns to 0	
-1 operation for parameter value: Press the [TOTAL] key to decrement the parameter value by 1 (or increment it by -1) Keeping the [TOTAL] key down for a while automatically decrements the parameter value by 1 continously. If the current value is 0, the maximum value appers.	
+10 operation for parameter value: Press the [TOTAL] key while holding down the [→T] key to increment the parameter value by 10. If the settings range of the parameter is less than 10, the operation is enabled and "000" stays on the panel in the spite of the operation.	
-10 operation for parameter value: Press the [→T] key while holding down the [TOTAL] key to decrement the parameter value by 10 (or increment it by -10) If the settings range of the parameter is less than 10, the maximum setup limit for the parameter stays on the panel in spite of the operation.	
Returning to Test Mode: Press the [→0←] key while holding down the [→T] key, and it returns to test mode. Note: Turn off the power and restart to make changes effective.	

Chapter 1 Adjustment method

1.3.4 List of initial parameter values before shipment by scale type/weighing capacity

Related pages: **Page 1-15 1.3.1 How to enter test mode and meanings of panel indications**

Page 1-7 (1) User Parameter Mode (to configure communication functions, multifunctions, and others

Page 1-10 (2) System Parameter Mode (to set stability detection and others)

Page 1-13 (3) Factory Parameter Mode (to set increment, area, default values and others)

Page 1-20 1.3.5 Initialization of CPU

The following table shows the initial setup values before shipment by type/weighing capacity for DP-6700 series.

If you replace the CPU board, make sure to initialize the board using a setup value (001 to 007 in the system parameter B0) corresponding to the type of your scale. Then, make necessary changes and confirm that the parameter values are equal to those in the table.

Refer to 1.3.5 Initialization of CPU on Page **1-20** for the initalization of the board

User Parameter

No.	Item	30 kg/ 60lb/ 960oz	60kg/ 150lb/ 2400oz	150kg/ 300lb/ 4800oz
1	Function Select	0	0	0
2	Number of Grading Ranks	6	6	6
3	Buzzer	0	0	0
4	Judgment for Grading (LED)	1	1	1
5	Auto-off Timer	3	3	3
7	Flicker of weight display	0	0	0
8	Grading Method	1	1	1
9	Gravity Compensation	Invalid	Invalid	Invalid
10	Sacle ID (for option)	0	0	0
11	Communication Mode	3	3	3
13	Communication Method	5	5	5
14	Communication Data	0	0	0
15	Communication Speed	0	0	0
16	Character Length	0	0	0
17	Parity	0	0	0
18	Stop Bit	0	0	0
19	Print	0	0	0
23	Send Display During Transfer	1	1	1
24	Unit at power on	0	0	0
25	Brightness of LED Lamp	0	0	0

Chapter 1 Adjustment method

26	Date & Time for	1	1	1
27	Setting value print for	1	1	1
28	Paper Feed	0	0	0
29	Printing Character	0	0	0
C3(123)	Zero Addition	0	0	0
d0#F1	Setting for audible grading	Invalid	Invalid	Invalid

System Parameter

No.	Item	30kg/ 60lb/ 960oz	60kg/ 150lb/ 2400oz	150kg/ 300lb/ 4800oz
30	System ID	15	15	15
31	Stable-state sampling count	4	4	4
32	Stable-state count	10	10	10
33	Very stable-state count	8	8	8
34	Stable-state releasing count	10	10	10
35	Stable-state average count	6	6	6
37	Data accumulation at	0	0	0
38	Local Multi-function setting	0	0	0
39	Skip in reading on display	2	2	2
B1(111)	Moving average filter 1	3	3	3
B2(112)	Moving average filter 2	4	4	4
B3(113)	Moving average filter 3	5	5	5
B4(114)	Moving average filter 4	0	0	0
C0(120)	Load/ Unload Judge	4	4	4
C1(121)	Buzzer at data transmission	1	1	1
C2(122)	One-time addition	1	1	1

Factory Parameter

No.	Item	30kg/ 60lb/ 960oz	60kg/ 150lb/ 2400oz	150kg/ 300lb/ 4800oz
40	Gravity compensation	106	106	106
41	Scale Mode	2	2	2
42	Multi-increments	0	0	0
43	Weighing capacity mantissa	3	6	15
44	Weighing capacity index	3	3	3
45	Increment of small capacity	0	1	2
46	Location of decimal point	2	2	2
47	Test for ceftification	0	0	0
50	Calibration with lb weight	1	1	1
51	lb: weighing capacity mantissa	6	15	30
52	lb: weighing capacity index	3	3	2
53	lb: location of decimal point	2	2	1
54	lb: increment	1	2	0
55	oz: weighing capacity mantissa	6	15	30
56	oz: weighing capacity index	2	1	1

Chapter 1 Adjustment method

57	oz: location of decimal point	1	0	0
58	oz: increment	2	0	1
60	Comma display	0	0	0
61	Weighing unit (g mode)	2	2	2
62	Weighing unit display	1	1	1
65	Internal Resolution	10	10	10
66	ADC Self-Calibration	25	25	25
67	ADC Cutoff bit no.	6	6	6
68	Over scale	5	5	5
70	Zero point range (%for full capacity)	19	19	19
71	Zero point range/plus side (%)	12	12	12
72	Tare clear by reset key	0	0	0
73	Zero tracking timing	12	12	12
74	Tare Function	2	2	2
75	Zero reset under tare operation	1	1	1
76	Simple combination function	0	0	0
77	Simple test mode	2	2	2
79	Raise precision of increment	0	0	0
80	Data transmission at	0	0	0
81	Fixed weighing function	1	1	1
82	Checkingweighing function	1	1	1
83	Grading function	1	1	1
84	Counting function	1	1	1
85	Display hold function	0	0	0
86	Time of display hold	0	0	0
87	Adding weight operation	0	0	0
88	Time delay for span adjustment	2	2	2
90	Mechanical zero 1	Auto	Auto	Auto
91	Mechanical zero 2	Auto	Auto	Auto
92	Mechanical zero 3	Auto	Auto	Auto
93	Span coefficient 1 (small)	Auto	Auto	Auto
94	Span coefficient 2 (small)	Auto	Auto	Auto
95	Span coefficient 3 (small)	Auto	Auto	Auto
96	Span coefficient 1 (middle)	Auto	Auto	Auto
97	Span coefficient 2 (middle)	Auto	Auto	Auto
98	Span coefficient 3 (middle)	Auto	Auto	Auto
99	Span adjustment zone	Auto	Auto	Auto
A0(100)	Board sensitivity adjustment 1	Auto	Auto	Auto
A1(101)	Board sensitivity adjustment 2	Auto	Auto	Auto
A2(102)	Board sensitivity adjustment 3	Auto	Auto	Auto
A3(103)	Span coefficient 1 (large)	Auto	Auto	Auto

Chapter 1 Adjustment method

A4(104)	Span coefficient 2 (large)	Auto	Auto	Auto
A5(105)	Span coefficient 3 (large)	Auto	Auto	Auto
A6(106)	Span adjustment zone	Auto	Auto	Auto
A7(107)	"lb:oz" Display	1	1	1
A8(108)	LED External output	0	0	0
A9(109)	Transmission for TDW	0	0	0
B0(110)	Factory setting	11	12	13
B5(115)	Transmission of ad value	0	0	0
B6(116)	Input judgment of filter "L" at stable	80	80	80
B7(117)	Input convergence of filter "S" at stable	2	2	2
B8(118)	Input difference of filter "S" at stable	2	2	2
B9(119)	Auto-tare delay, subtracting grading	25	25	25
C7(127)	Keyboard tare	0	0	0
C8(128)	Recommended calibration method	5	5	5
C9(129)	Store display hold mode	Auto	Auto	Auto

1.3.5 Initializtion of CPU board

Related pages: **Page 1-5 1.3.1 How to enter test mode and meanings of panel indications**

Page 1-13 (3) Factory Parameter Mode (to set increment, area, default values and others)

Page 1-17 1.3.4 List of initial parameter values before shipment by scale type/weighing capacity

If you replace the CPU board, you need to initialize the board.

Initialize the CPU board according to the follow procedure:

Procedure	Indication
Display the internal count in test mode referring to **1.3.1 How to enter test mode and meanings of panel indications** on Page **1-5**. When the internal count is shown on the panel, press the TOTAL key while holding down the →0← key: it switches to span adjustment mode. (See **1.3.6 Span adjustment (calibration)** on Page **1-22)** In span adjustment mode, press the →0← key while holding down the →T← key; it switches to system parameter mode.	 

Chapter 1 Adjustment method

Example: When making the setting for DP-6700 certificated scale with a weighing capacity of 30kg, Press the [T] key once to change the setup value to 001. All the setup values are listed in the parameter table in **1.3.4 List of initial parameter values before shipment by scale type/weighing capacity** on Page 1-17.	
Press the [→0←] key to go to the next parameter. Make sure to go to the next parameter to enable the new value. After displaying b as shown in the right figure, keep pressing the [ON/OFF] key until the power turned off.	
To display [-Pro] as show in the figure, turn on the power while holding the [ON/OFF] key down.	
Press the [→0←] key while holding the [T] key down. then [==Pro] appears as shown in the right figure, and the initialization starts. According to the progress of the initialization, figures appear in the sub-display unit. Caution: Never turn off the power during the initialization.	

When all the segments of the display start blinking, the intialization of the CPU board is complete.

Chapter 1 Adjustment method

1.3.6 Span adjustment (calibration)

Related pages: **Page 1-5 1.3.1 How to enter test mode and meanings of panel indications**

Make sure to use weights that have the accuracy of Class 2 standard weight or highter, and carry out the following procedure for span adjustment.

Get the weights for 500 increments, 1/2 weighing capacity and full weighing capacity to perform span adjustment. For example, to calibrate the scale with weighing capacity of 30kg, 2 sets of weights totaling 15kg and a 5000g weight are necessary.

Caution: Span adjustment may not be made properly in a place exposed to vibrations or wind therefore avoid such places.

Procedure	Indication
Display the internal count in test mode referring to **1.3.1 How to enter test mode and meanings of panel indications** on Page **1-5.** When the internal count is shown on the panel, press the [TOTAL] key while holding down the [→0←] key; it switches to span adjustment mode. Press the [→0←] key to stop the procedure. The indication returns to the internal count.	 
Example: When making the setting for DP-6700 certificated scale with a weighing capacity of 30kg /1g, Confirm that there is nothing on the weighing platform, and the press the [→T←] key.	
Check that the screen is as shown in the right figure. If so, place a set of weights totaling 5000g on the middle of the weighing platform, and then press the [→T←] key. Note that a value to be displayed varies depending on the instrument. If the screen is different from the right figure, press the [→0←] key and start from the first step.	
Check that the screen is as shown in the right figure. If so, place a set of weights totaling 15kg on the middle of the weighing platform, and then press the [→T←] key. Note that a value to be displayed varies depending on the instrument. If the screen is different from the right figure, press the [→0←] key and start from the first step.	

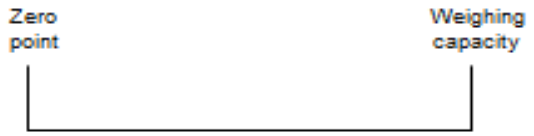
Chapter 1 Adjustment method

Check that the screen is as shown in the right figure. If so, place another set of weights totaling 15kg on the middle of the weighing platform so that the total weight will be 30kg, and then press the [→0←] key. Note that a value to be displayed varies depending on the instrument. If the screen is different from the right figure, press the [⊸] key and start from the first step.	
The panel shows "30000" after span adjustment. Perform span adjustment again if linearity is not achieved.	
If the right screen appears after span adjustment, the following reasons are possible: (1) The weighing value of up to the weighing capacity could not be measured. **A.** Check the system parameters. **Related page: Page 1-13** **(3) Factory Parameter Mode (to set increment, area, default values and others)** **A wrong parameter value may have caused a failure of span adjustment.** **B. The mass of the placed weights was wrong.** **C. The CPU board was not correctly connected to the load cell. The connection was broken.** (2) Span adjustment was performed without placing any weights. A. Place correct weights and perform span adjustment again.	 Press the [→0←] key to clear this indication; and the screen returns to test mode.

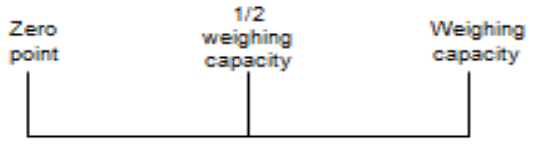
Chapter 1 Adjustment method

There are the following types of span adjustment points.
When the internal count is shown on the panel, press the TOTAL key while holding down the → 0 ← key; it switches to span adjustment mode. Press the TOTAL key again to change span adjustment points.

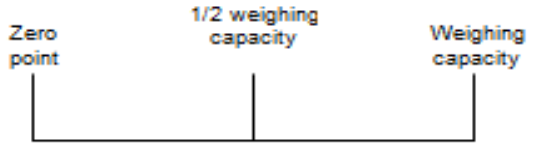
Adjustment made using 2 points – zero point and full weighing capacity



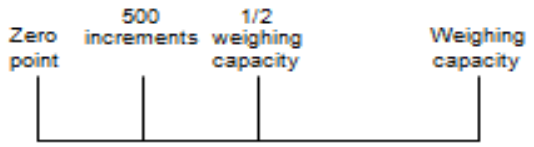
Adjustment made using 3 points – zero point, 1/2 weighing capacity and full weighing capacity



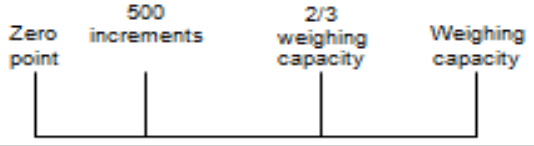
Adjustment made using 4 points – zero point, 1/2 weighing capacity, full weighing capacity and 1/2 weighing capacity on return



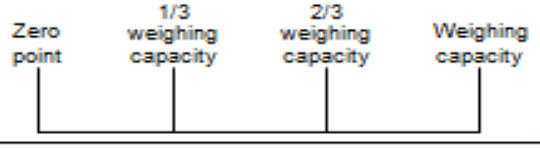
Adjustment made using 4 points – zero point, 500 increments, 1/2 weighing capacity and full weighing capacity



Adjustment made using 4 points – zero point, 500 increments, 2/3 weighing capacity and full weighing capacity

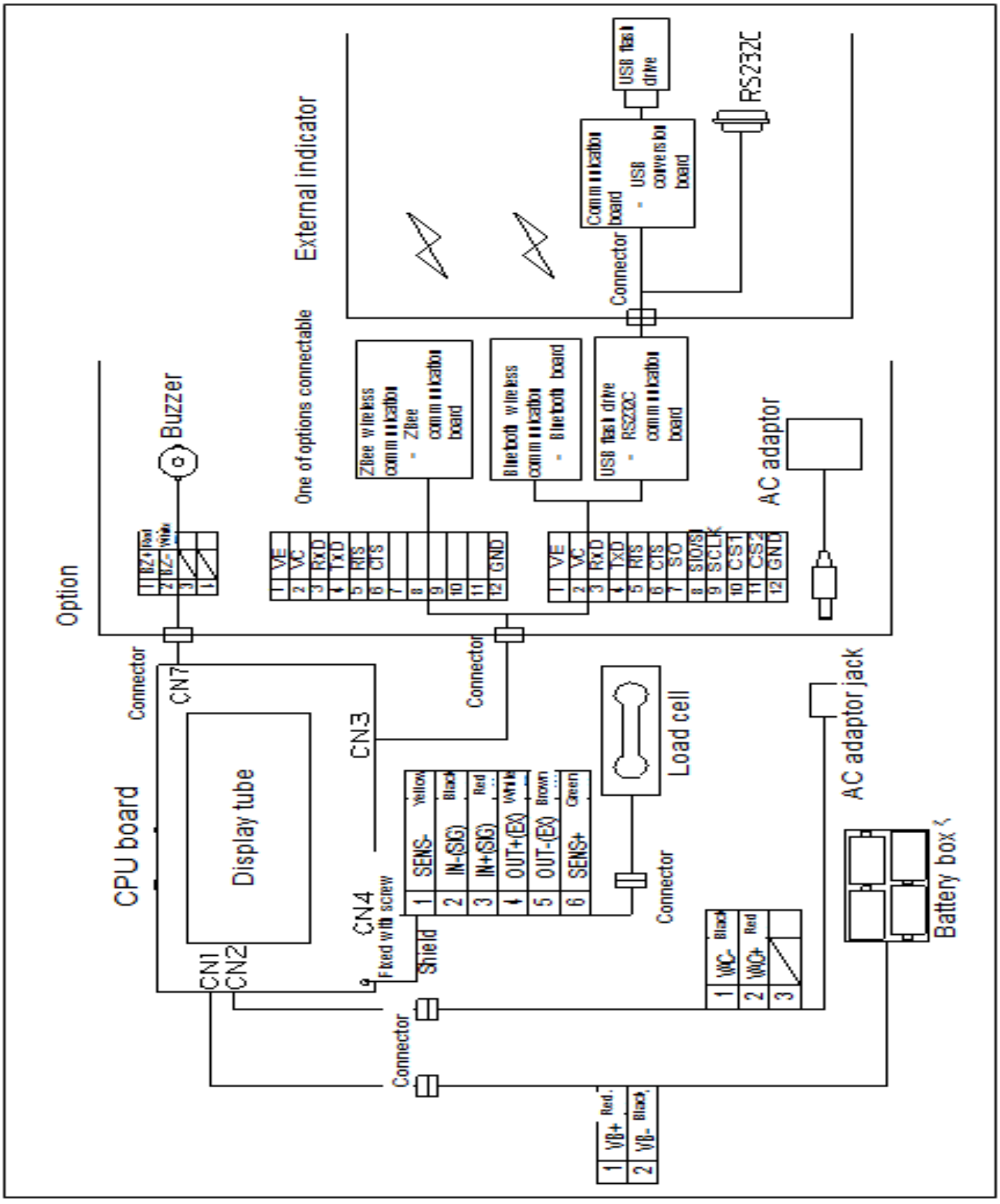


Adjustment made using 4 points – zero point, 1/3 weighing capacity, 2/3 weighing capacity and full weighing capacity



Chapter 1 Adjustment method

1.4 Wiring diagram



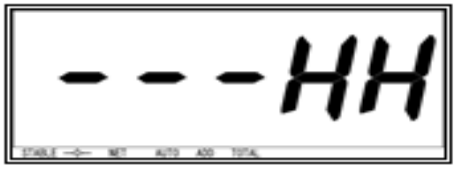
Chapter 1 Adjustment method

1.5 Error Code

The error codes are defined as follows:

	**E2PROM Write Error**: Change the board.
	**E2PROM Write Error**: Change the board.
	**Span Adjustment Error**: The mass of the weight used for span adjustment may be incorrect, or the weighing capacity settings of the load cell and the board may be different.
	**E2PROM Write Error**: Change the board.
	**Keyword CRC Error**: It is necessary to change the board.
	**E2PROM Write Error**: Change the board.
	**E2PROM Access Error**: It is necessary to change the board.

Chapter 1 Adjustment method

	**E2PROM Access Error**: It is necessary to change the board.
	**E2PROM Write Verification Error**: It is necessary to change the board.
	**Bluetooth Communication Error:** Wireless printer or Bluetooth program may not be ready for use or may be out of the communication range. Enable the communication and restart the scale.
	**USB Connection Error:** USB key drive may not be inserted. Attach the key drive and transfer data again.
	**Illegal Processing Error:** It is necessary to change the board.
	**Keyword Readout Bug Error**: It is necessary to change the board.
	**Keyword Write Bug Error**: It is necessary to change the board.
	**Initial Error**: Weighing sensor (load cell) is damaged by overload or for other reasons, or CPU board is damaged by humidity.
	**Initial Error**: Weighing sensor (load cell) is damaged by overload or for other reasons, or CPU board is damaged by humidity.

Chapter 1 Adjustment method

	**Data Overcapacity Error:** Data saved in the scale has reached the full capacity of the internal memory. Transfer the data to a USB flash drive and clear them from the internal memory.
	**Printer Error:** Roll paper is not set in the printer, or the printer cover is open. Set paper in place or close the cover, and restart the scale.
	**Communication Standby Status:** Communication function is active and standby. If you do not use the communication function, you can set the user parameter No.11 to "0", which disables this error code.
	**Data Overcapacity Error:** Data saved in the scale has exceeded 90% of the internal memory capacity. Transfer the data to a USB flash drive and clear them from the internal memory.
	**Aggregate Date Overcapacity Error:** Aggregate sum of mass data or the number of additions has exceeded the internal memory capacity of the scale. Reset the total value.
	**Voltage Error** This message appears when the output voltage from the AC adaptor is low. Possible reasons include: ① Low voltage of power source ② The standard AC adaptor was connected to a unit with a voice ranking feature.
	**Battery Error:** This message appears when the battery voltage is low. Replace all 4 batteries with new ones.
	**Printer Error:** Remaining battery level of the wireless printer is low. Recharge the battery using the AC adaptor supplied with the printer.
	**Multifunction Setup Error:** An illegal value is set to the multifunction parameters. Restart the unit and set a new value.

Chapter 2 Communication option

2.1 How to make the settings for optional communication

2.1.1 Parameter values when using communication options

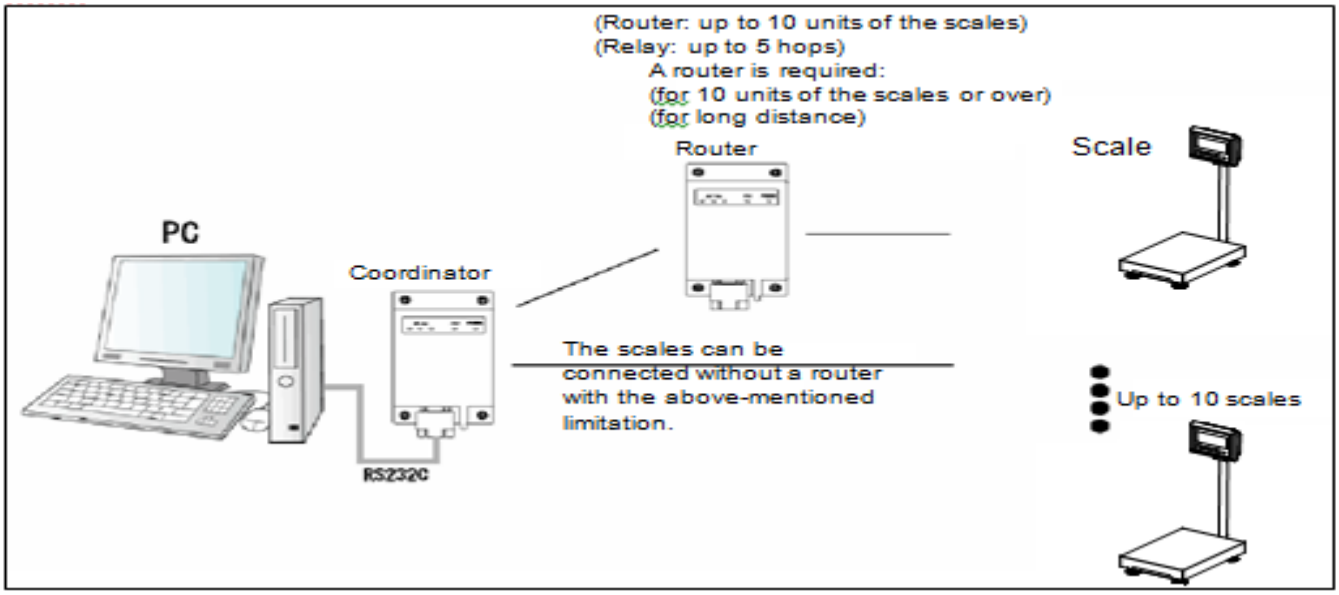
To use a communication option, change some parameters manually as shown in the following table.

DP-6700	
USB Memory	ZBee Wireless
Change #11 to 001	Change #11 to 001
Change #13 to 003	Change #13 to 001
Change #27 to 000	Change #27 to 000

Chapter 2 Communication option

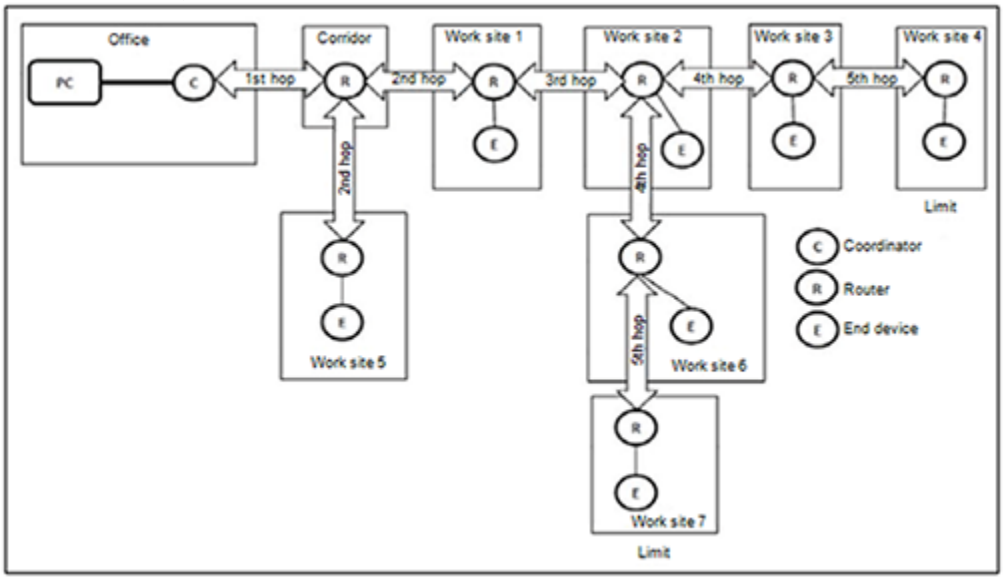
2.1.2 Overview of ZBee communication option

ZBee works in the following network of devices:



A transmission/reception device called a coordinator is connected to a PC for communication. Each scale has a built-in a ZBee board (called an end device) for the communication with the coordinator. Unlike the Bluetooth communication, no pairing is required between a coordinator and a scale. A coordinator is capable of communicating with any scale that are detected by it.

One coordinator can communicate with up to 10 scales. If more scales are needed to connect to the communication network, or the distance between a coordinator and a scale is too long to establish communications, a relaying device called a router is installed. The following figure shows the relationship between a coordinator, routers and end devices.



Chapter 2 Communication option

(1) Communication distance

In general, the possible communication distance using a scale with a built-in ZBee module is shown in the following table.

Measurement conditions: A coordinator box is installed at the height of about 2m above the floor.

Measurement location	DP-6700
Outdoors with a clear view of the area	About 35m
Office and other places with a poor view of the area	15 to 18m
Factory and other places with a slightly poor view of the area	15 to 28m

If a cabinet (shelf case) sized 270 x 180 (cm) is installed in a place with a clear view of the area, the communication distance reduces to about 10 m. Although communication can be achieved even with some obstacles, it is important to install the unit in a place that allows as clear view of the area as possible. If the distance is 10 m or longer, the communication condition is significantly influenced by the installation environment. Accordingly, the best way is to install scales within 10 m radius of the coordinator or the router. Please make sure to check the communication distance before use because it varies by the scale.

(2) Factors in obstructing communications

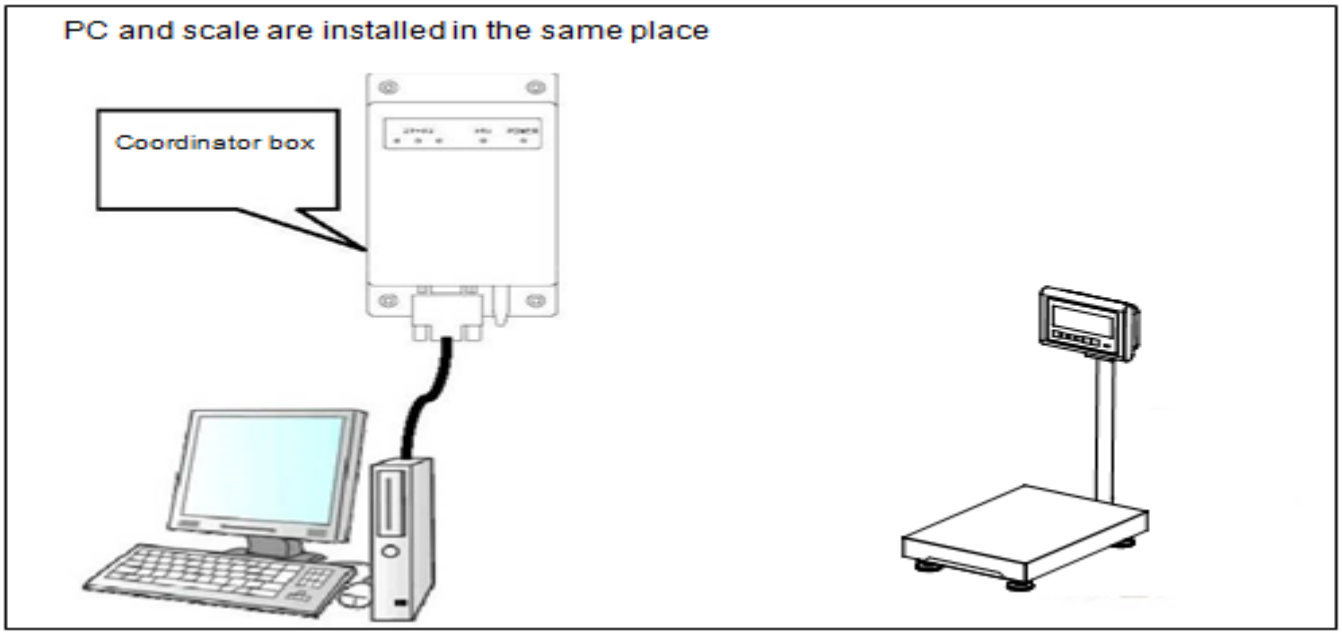
ZBee uses a frequency band of 2.4Ghz, and the radio waves are high in directivity and **poor in avoiding an obstacle**. Because they are easily absorbed in water, the communication distance reduces in a highly humid environment. The human body is largely made up of water, so it absorbs radio waves. If the distance between two devices is close to the limit of the communication distance, a presence of a person standing on the communication path may block the communication.

No consideration is required for the presence of transparent glass becauae **radio waves pass through such glass.** Consideration should be paid to metals and concrete because they block radio waves.

(3) How to extend communication distance

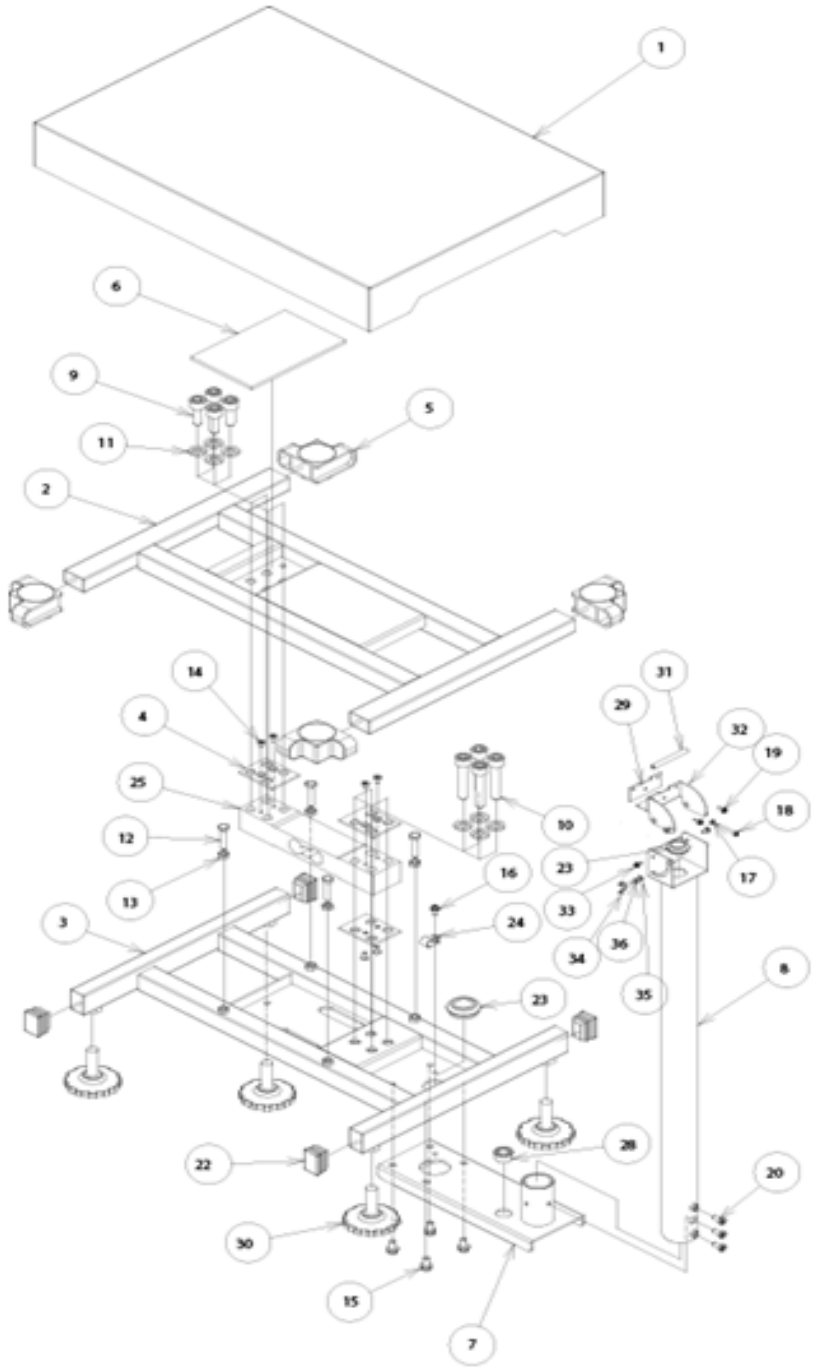
① If a router is not used (up to 8 scales can be connected), the coordinator box must be installed in a location without obstacles in between. As one of the ways of reducing the adverse effect of obstacles, the coordinator box is recommended to be installed **in a some what high place** (at a height of about 2 m above the floor)

Chapter 2 Communication option



② The installation of a router (relaying device) extends the communication distance. If routers are added for communication of a very long distance, the network can support up to the 5 hops. Routers can be installed in a networking layout, and each router **allows up to 5 layers of re lays.** It is most recommended to install scales within 10 m radius of a router. The routers are not waterproof and a waterproof box is available as an option.

Chapter 3 How to disassemble



PRODUCT	WATER-PROOF PLATFORM SCALE
MODEL	DP-6700
LOCATION	WEIGHING PLATFORM
DRAWING NO.	SSBZ091201

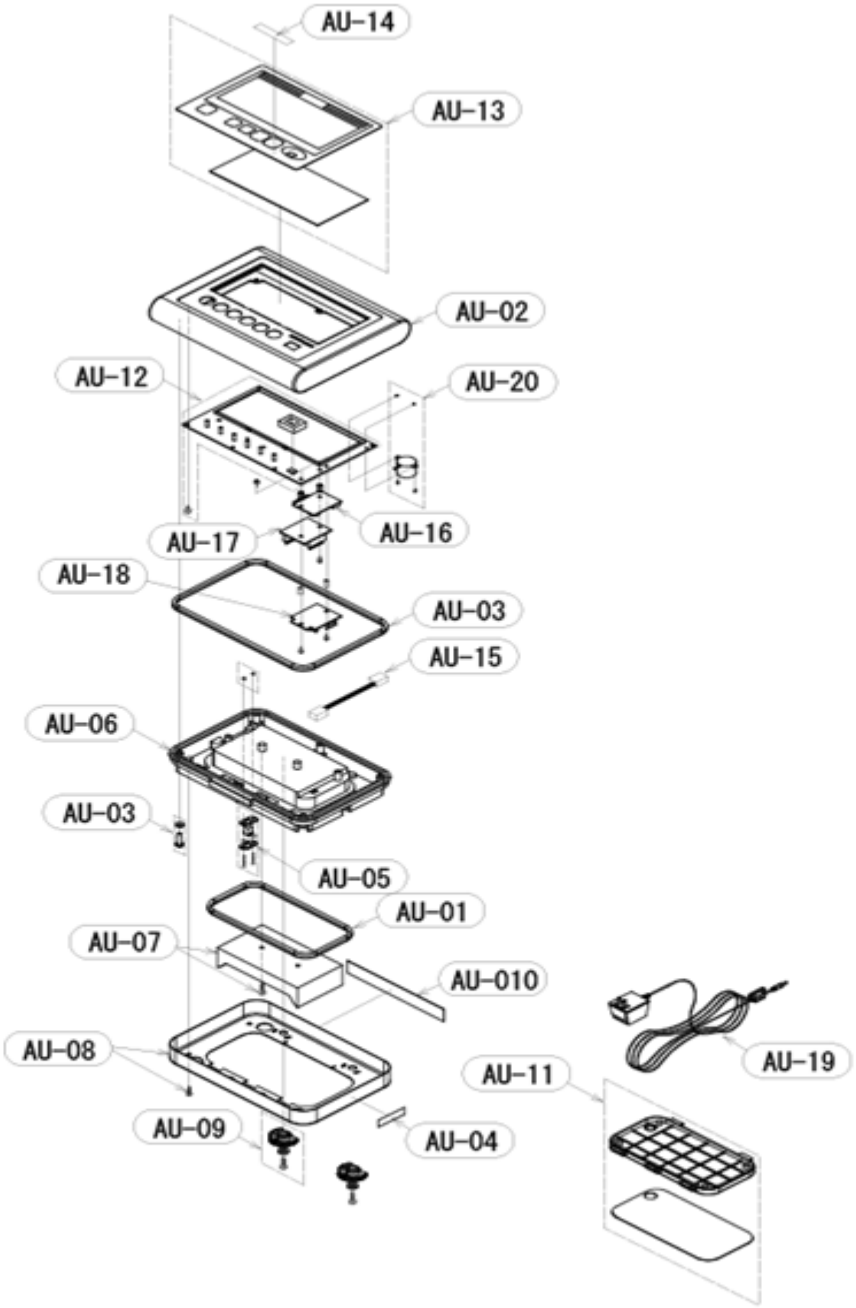
Chapter 3 How to disassemble

◆ PARTS PRICE LIST ◆

PRODUCT	WATER-PROOF PLATFORM SCALE
MODEL	DP-6700
LOCATION	WEIGHING PLATFORM
DRAWING NO.	SSBZ091201

INDEX	UNIT CODE	PART NAME	PCS/UNIT
1	62670043	Platform cover	1
2	62670046	Upper frame assembly	1
3	62670052	Base assembly	1
4	62670058	Spacer/load cell	3
5	62670059	Plug/upper frame	4
6	62670060	Shock absorbing rubber A	1
7	62670061	Pole stand	1
8	62670068	Column	1
9	42220145	Bolt (M10×25) SUS	4
10	42220146	Bolt (M10×50) SUS	4
11	43310010	Spring washer φ10 SUS	8
12	42220147	Bolt (M6×35) SUS	4
13	43210006	Hex. nut M6 SUS	4
14	42220148	Screw (flat head) M4×8 SUS	6
15	42220149	Screw (pan head) M6×18 P3 SUS	4
16	62918007	Screw (pan head) M4×10 P3 SUS	3
17	42220004	Sealing washer M4 SUS	1
18	42220150	Screw (pan head) M4×40 P2 SUS	1
19	42220151	Screw (pan head) M4×12 P3 SUS	2
20	42220152	Bolt M5×10 P2 SUS	3
21		Not used	
22	42220154	Base plug	4
23	42220155	Grommet	2
24	57775005	Nylon clamp	1
25	53699511	Load cell for Cap. 30kg scale	1
	53699512	Load cell for Cap. 60kg scale	1
	53699513	Load cell for Cap. 150kg scale	1
26		Not used	
27		Not used	
28	62600001	Level indicator	1
29	63990039	Cushion rubber/indicator mounting bracket	1
30	63990136	Levelling leg	4
31	63991025	fulcrum rod	1
32	63991024	Mounting bracket/indicator	1
33	62918007	Screw (pan head) M4×10 P3 SUS	2
34	42220156	Butterfly bolt M5×15 SUS	1
35	43320005	Washer φ5 SUS	2
36	43310005	Spring washer φ5 SUS	1

Chapter 3 How to disassemble



PRODUCT	WATER-PROOF PLATFORM SCALE
MODEL	DP-6700
LOCATION	INDICATOR
DRAWING NO.	SSBZ091130

Chapter 3 How to disassemble

◆ PARTS PRICE LIST ◆

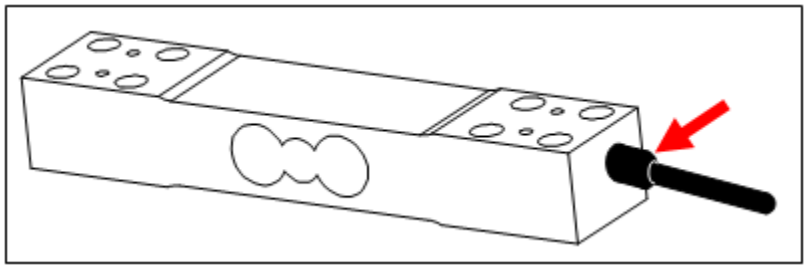
PRODUCT	WATER-PROOF PLATFORM SCALE
MODEL	DP-6700
LOCATION	INDICATOR
DRAWING NO.	SSBZ091130

INDEX	UNIT CODE	DESCRIPTION	COMPLETE PARTS	PCS
AU-01	63990041	Packing B	Packing B	1
AU-02	62670101	Front case	Front case	1
AU-03	62677001	Packing A	Sealing washer M4 SUS	5
			Screw (pan head) M4×25 P2 SUS	5
			Packing A	1
AU-04		Not used		
AU-05	62677002	AC jack	Mounting plate B/AC adaptor	1
			Nut M2.3 SS	2
			Mounting plate A/AC adaptor	1
			Spacer/AC jack	3
			Screw (pan head) M2.3×16 P2 SUS	2
			AC jack	1
AU-06	62677003	Rear case	Rear case	1
			Waterproof cap	1
			Snap terminal	1
			Sticker/battery lid	1
AU-07	63997005	Battery box	Battery box	1
			Tapping screw M4×8	2
AU-08	62677004	Rear case cover	Rear case cover	1
			Screw (pan head) M4×8 SUS	4
AU-09	63997007	Knob/battery lid	Knob	2
			Washer (6.4×12.5×1.6)	2
			Screw (pan head) M4×10 SUS	2
AU-10		S/N plate (YCO)	Serial No. Plate (YCO)	1
AU-11	62677005	Battery lid (battery type)	Battery lid	1
			Blinding sticker	1
			Battery lid cover(battery type)	1
	62677006	Battery lid (AC adaptor)	Battery lid	1
			Battery lid cover(AC adaptor type)	1
AU-12	62677007	CPU board	CPU board	1
			LED cover	1
			Screw (pan head) M3×6 P3 SUS	5
AU-13		Front mask (YCO)	Front film (YCO)	1
			Front glass	1
AU-14		Cap. sticker, 30kg/60lb/960oz	Cap. sticker, 30kg/60lb/960oz	1
		Cap. sticker, 60kg/150lb/2400oz	Cap. sticker, 60kg/150lb/2400oz	1
		Cap. sticker, 150kg/300lb/4800oz	Cap. sticker, 150kg/300lb/4800oz	1
AU-15	62670762	Load cell intermediate cable	Load cell intermediate cable	1
AU-16		Not used		
AU-17	62677014	Zbee kit (option)	Zbee board	1
			Harness	1
			Spacer	2
			Screw (pan head)	4
AU-18	62677015	RS232C kit (option)	RS232C board	1
			Harness	1
			Spacer	2
			Screw (pan head)	4
AU-19		AC adaptor (option)	AC adaptor	1
AU-20	62677012	Buzzer kit (option)	Nut	2
			Buzzer	1
			Screw (pan head)	2

Chapter 3 How to disassemble

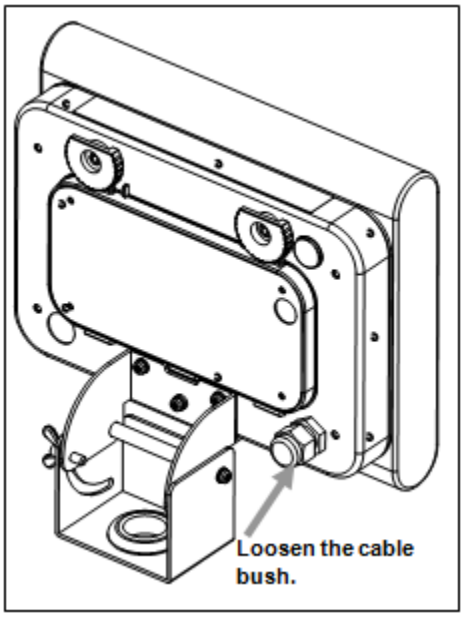
3.1 Precautions before carrying out repiars

The load cell included in this model is fully covered with rubber to enchance the damp and water proofing performance. Be extra careful in handling the surface rubber because it is easy to tear, especially the rubber around the cable connecting part is more easily damaged. If the surface rubber is torn, the load cell must be replaced with a new one because the damp and water proofing performance will substantially deteriorate.



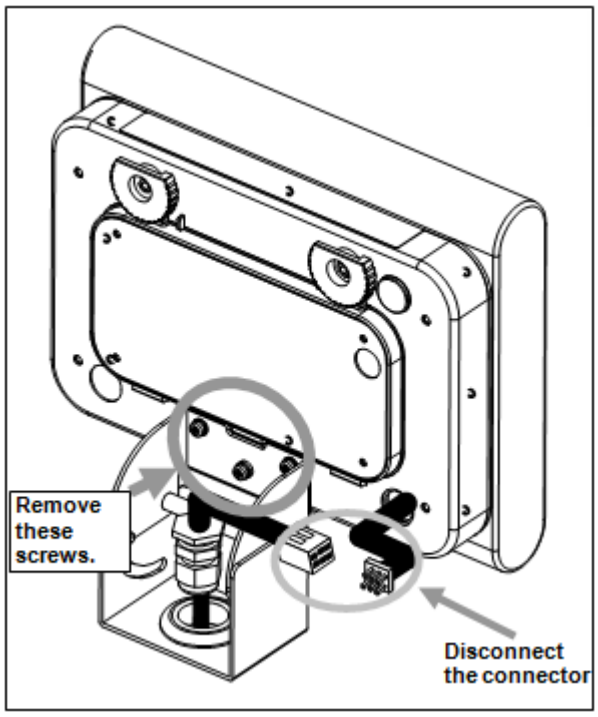
3.2 How to remove the board

① Hold the root of the cable bush and loosen it. Then pull out the cable.

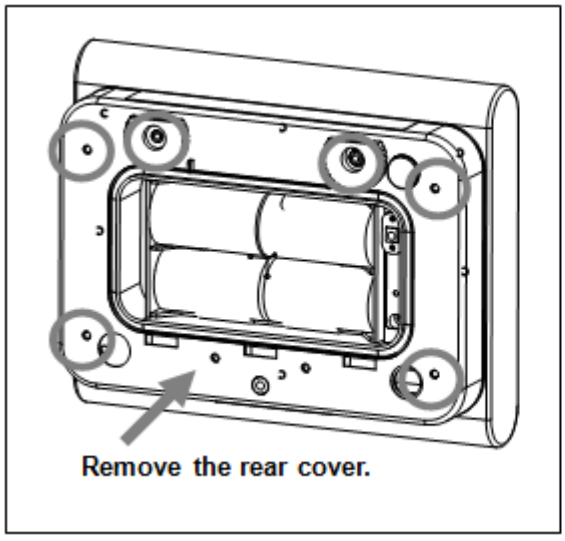


Chapter 3 How to disassemble

② Disconnect the cable connector and then remove the screws circled in the following figure. Now you can remove the indicator.

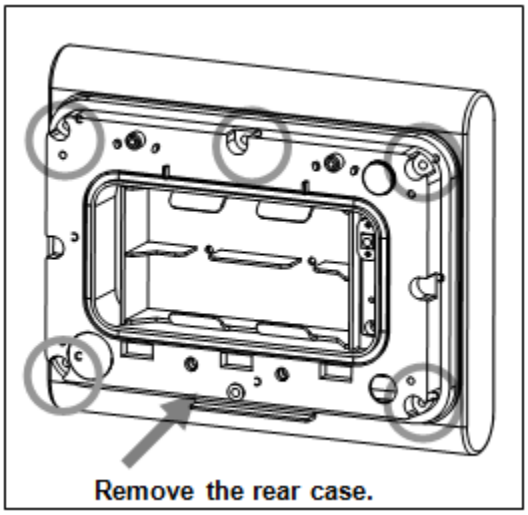


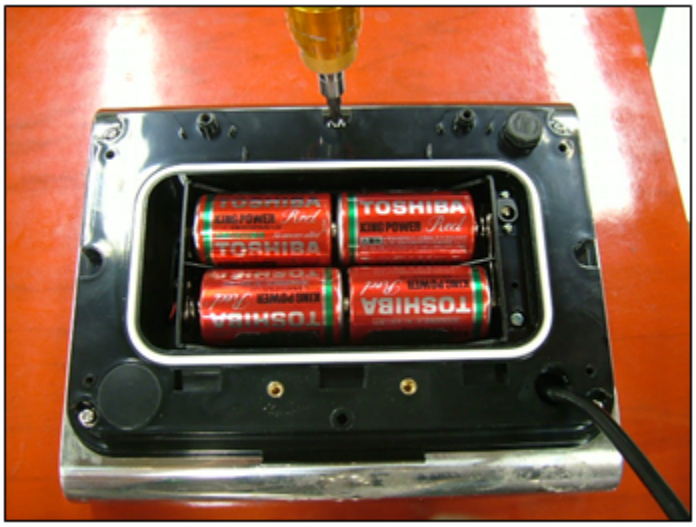
③ Unscrew the 6 screws circled in the following figure and remove the rear cover.



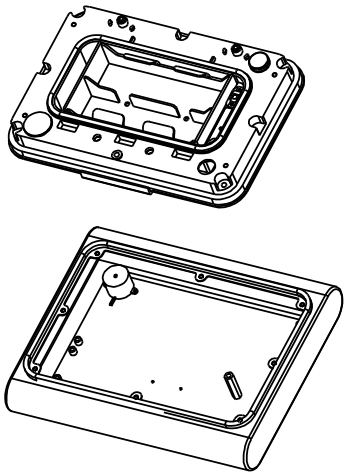
Chapter 3 How to disassemble

④ Unscrew the 5 screws circled in the following figure and remove the rear case.



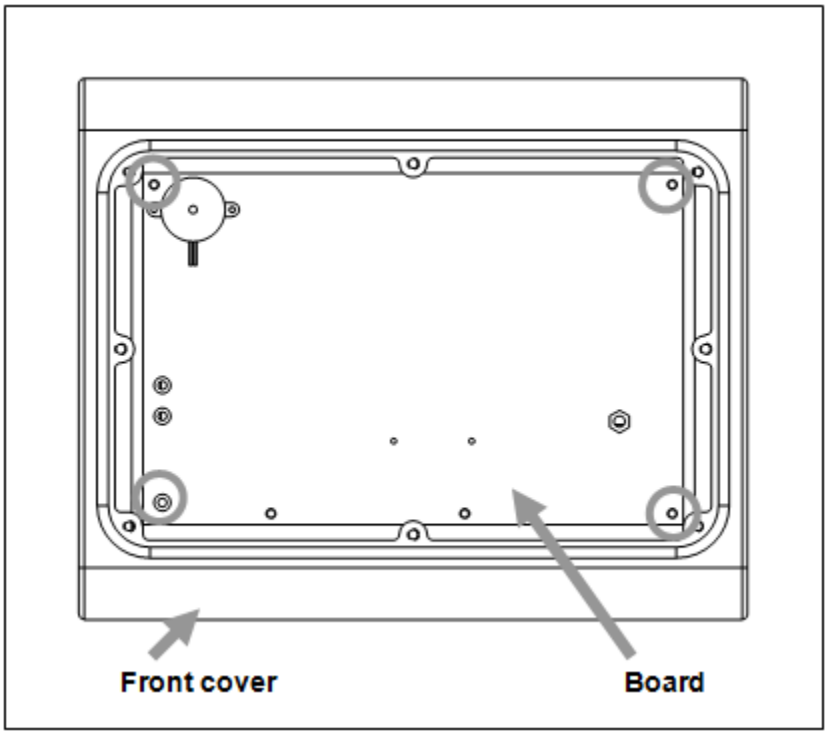


⑤ As shown in the following figure, the front cover can be separated from the rear cover. The AC jack and the connector of the battery box are conncected the board. Make sure to pull them out while keeping the rear cover slightly open.



Chapter 3 How to disassemble

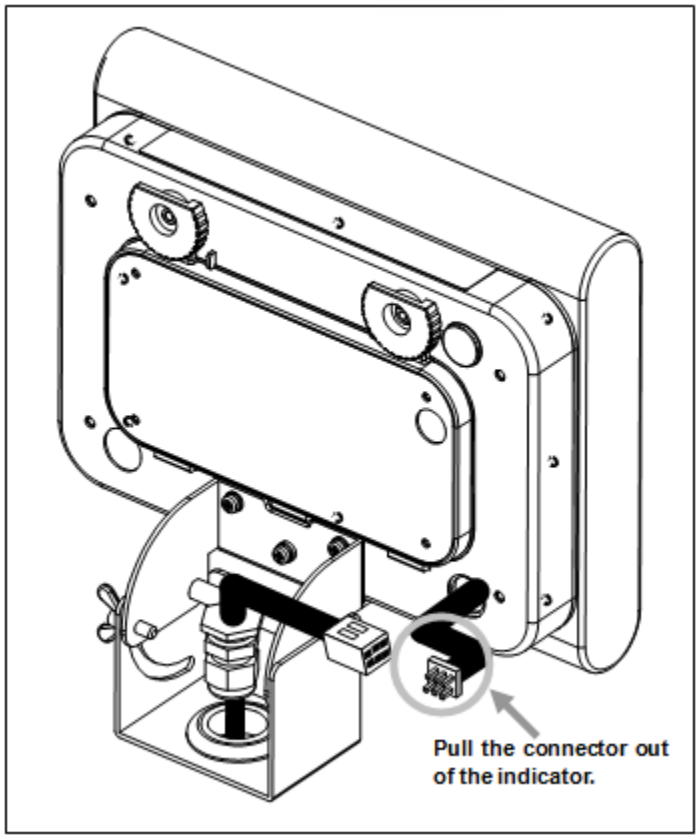
⑤ Unscrew the screws circled in the following figure. Now you can remove the board.



Chapter 3 How to disassemble

3.2.1 Tips for assembly of the indicator

Before assembling the indicator, pull the cable connector of the load cell out of the indicator, as shown in the following figure. If the connector is left inside the indicator, it will not be able to connect to the connector of the weighing section in the last step.

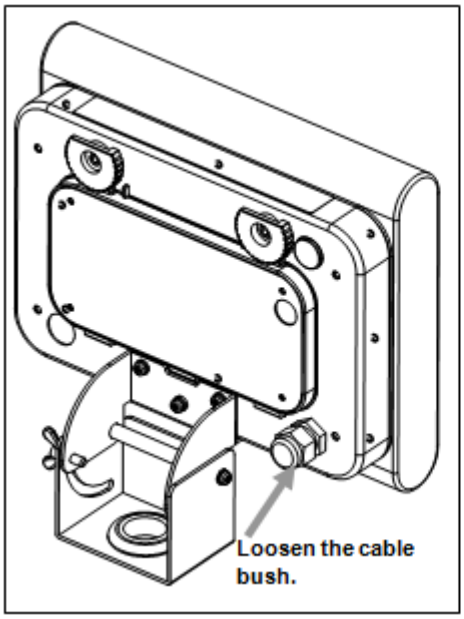


Chapter 3 How to disassemble

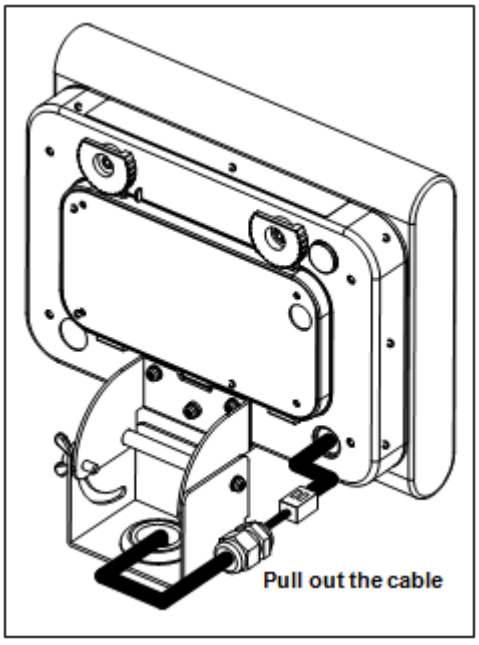
3.3 How to replace the load cell

3.3.1 How to replace the load cell

① Hold the root of the cable bush and loosen it. Then pull out the cable.

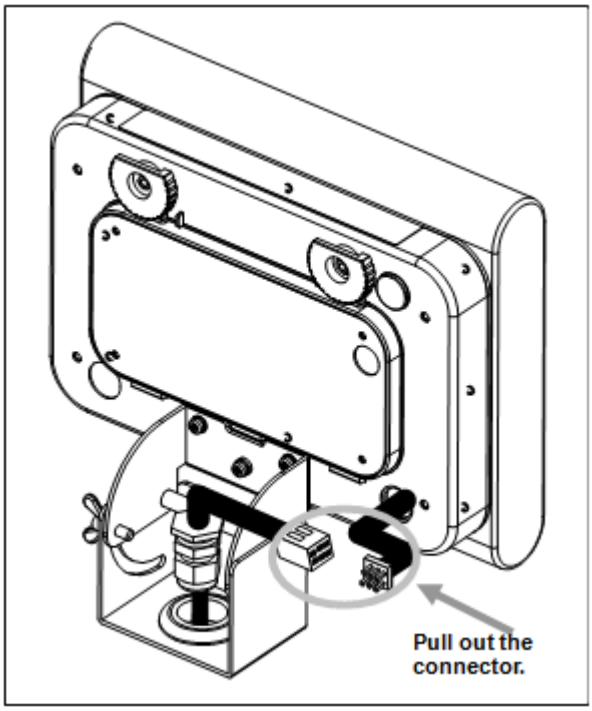


② Pull out the cable.

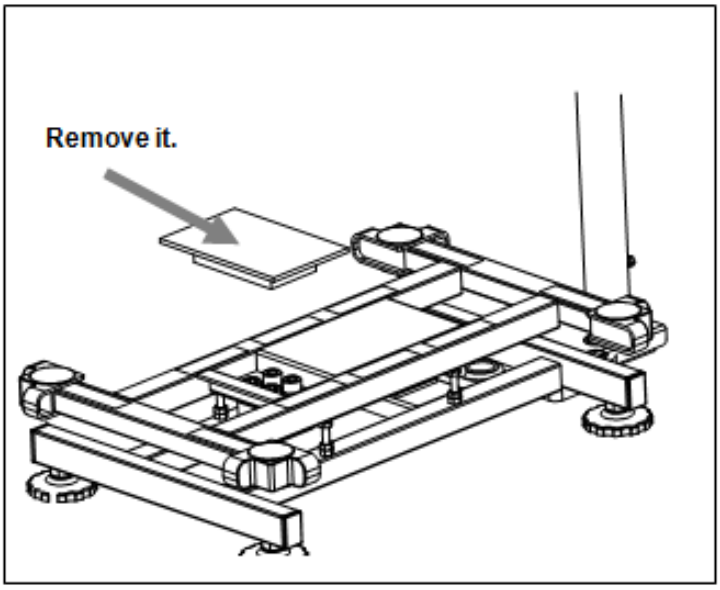


Chapter 3 How to disassemble

③ Pull out the cable connector as shown in the following figure.

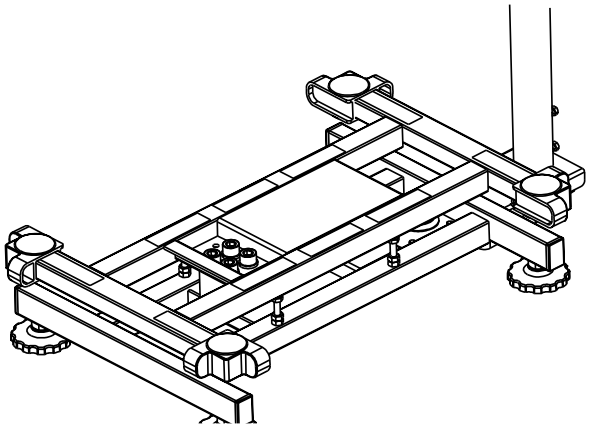


④ Remove the weighing platform and then remove the rubber cover attached to the upper frame. The rubber cover is simply snapped into the frame. Remove it using a flathead screwdriver or similar tools.

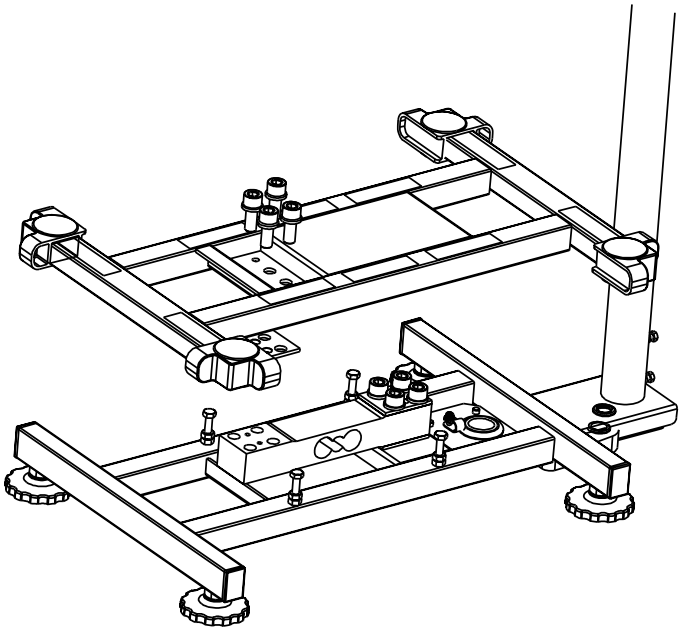


Chapter 3 How to disassemble

⑤ Remove the bolts circled in the following figure.

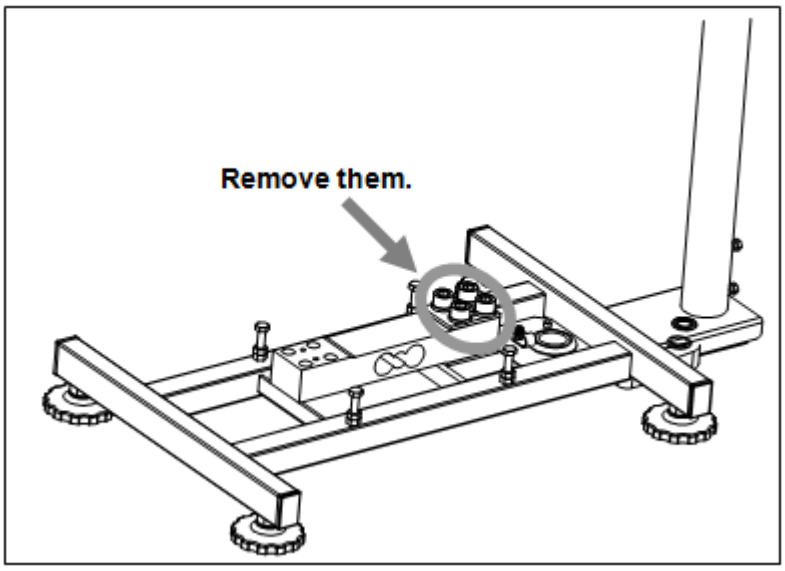


⑥ The upper frame can be removed as shown in the following figure.

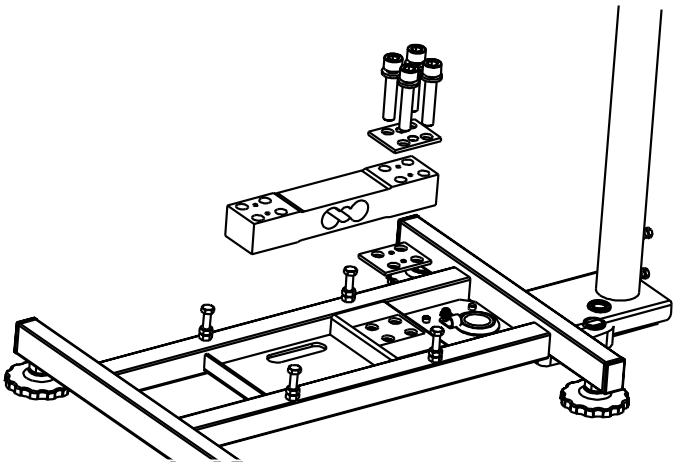


Chapter 3 How to disassemble

⑦ Remove the bolts circled in the following figure. Now you can remove the load cell



⑧ The load cell can be removed as shown in the following figure.



Chapter 3 How to disassemble

⑨ As shown in **Figure 3-1 View of underside**, the underside of the support holder has a notch. Pass the connector of the load cell cable and cable bush through the notch, and then remove the cable of the load cell.

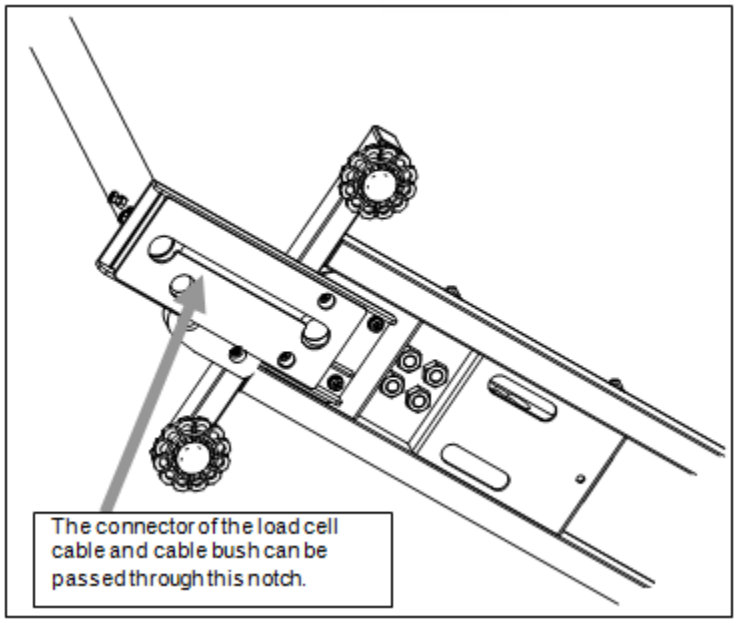


Figure 3-1 View of underside

3.3.2 Tips for installation of the load cell

① The load cell is supplied in an assembly as shown in **Fig. 3-2 View of Load Cell for shipment**. The load cell comes with the preassembled cable bush and connector, and accordingly the connector can be connected without disassembling the indicator.

② The connector for relaying purpose comes out of the indicator as shown in **Figure 3-3 View of indicator Connector.** Connect this connector to that of the load cell and put it back into the indicator. Then fasten the cable bush.

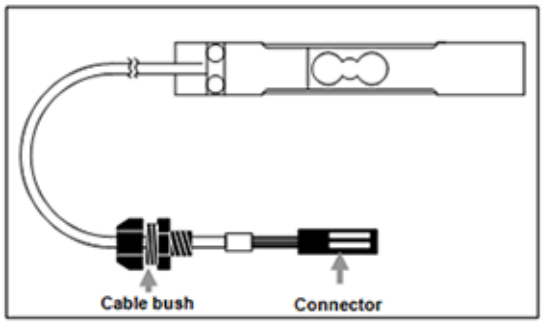


Fig. 3-2 View of Load Cell for Shipment

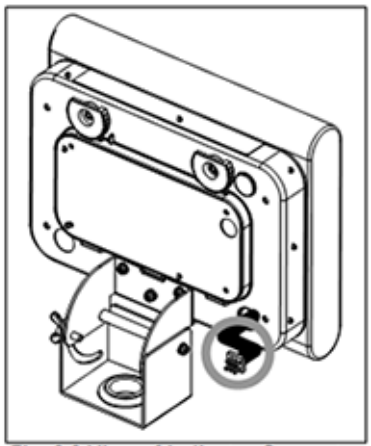


Fig. 3-3 View of Indicator Connector

Chapter 3 How to disassemble

3.4 How to perform eccentric error adjustment

The eccentric error adjustment is performed by inserting a rattail file (with the front edge of about 0.8mm) onto the surface rubber. As shown in Figure 4, s;ightly put the front edge into the rubber and scrape the load cell inside. At that time, be careful not to break the rubber with the rattail file. On completion of the eccentric error adjustment, dip a cotton swab etc. into the caulking agent (included in the parts price list as one of our supplies) and apply it to the hole made by the rattail file.

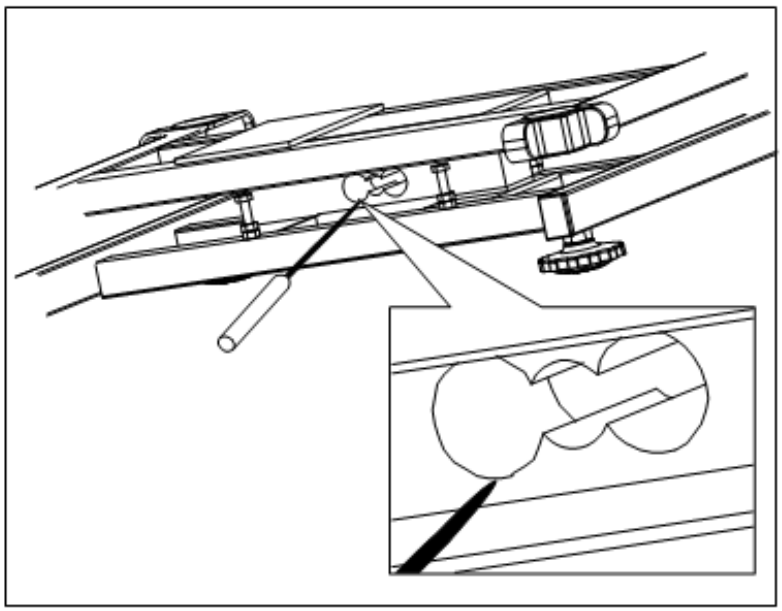


Figure 3-4 View of Eccentric Error Adjustment

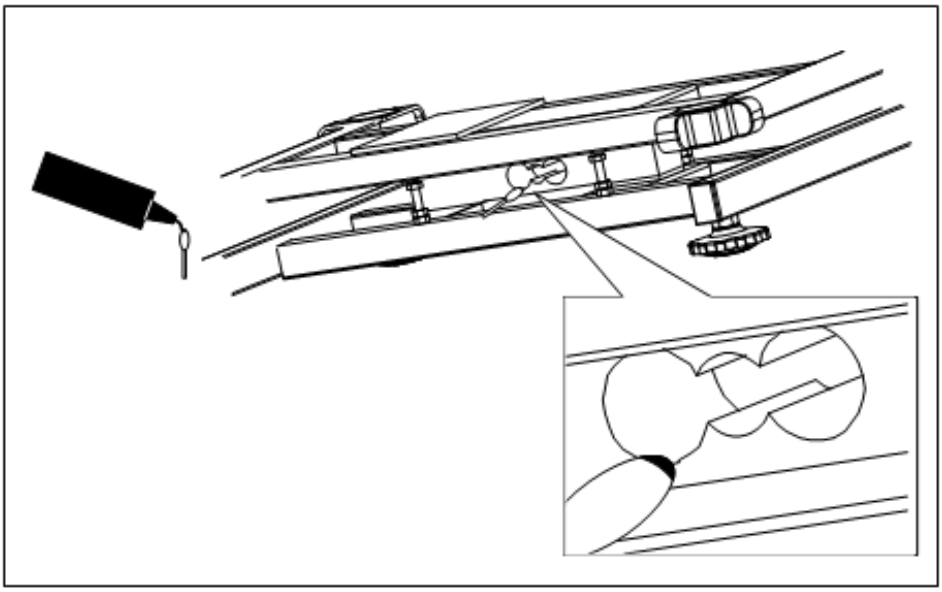


Figure 3-5 View of Caulking Agent Application

Chapter 4 Procedures for maintenance, inspection and other responses

If a problem occurs before the sale, take necessary actions in accordance with the procedures for maintenance, inspection and other responses.

The column of "Possible cause to be checked" shows several examples that may cause respective problems. If you cannot identify the cause of the problem, inspect all the possible areas mentioned in the column in order.

If the problem still persists after taking the actions described in the table, request us to repair the unit. At the time, please let us know detailed information of the problem.

Category	Problem	Possible cause to be checked	Action
Problems when turning on the power	Nothing is displayed when pressing ON/OFF key.	Is the polarity of any batteries correct?	Set it correctly.
		Is any of the batteries low?	Replace all the batteries with new ones.
	After all digits of the panel flash '8', they do not change to '0'.	Is the unit affected by wind or vibrations (through an open window or air conditioner etc.)?	Take an appropriate measure to eliminate wind and vibrations, or move the unit to a place without the influence.
	After all digits of the panel flash '8', [---HH] appears.	Is there anything placed on the weighing platform?	Remove the item on the weighing platform and press the → key again.
		Does the weighing platform come in contact with anything?	Remove the item that contacts the platform and press the → key again.
	After all digits of the panel flash '8', [---LL] appears.	Is there anything stuck between the weighing platform and the main body?	Remove the item stuck between the weighing platform and the main body and press the → key again.
		Does the weighing platform come in contact with anything?	Remove the item that contacts the platform and press the → key again.
	Any of the display segments does not come on.	Are there any dents caused by an impact on the unit?	Replace the CPU board.
	There are water drops inside the display unit.	Is there any tear in the front film?	Replace the front film with a new one.
		Are there any dents or cracks at the front film that affect the water proof performance?	If the front film is damaged, replace it with a new one.
Problems in operation	A different weighing value is displayed every time the zero point is displayed or the measurement is made.	Is there anything stuck between the weighing platform and the main body?	Remove the item stuck between the weighing platform and the main body.
		Is the unit installed on a flat surface without causing wobble or inclination?	Install it on a flat surface and prevent wobble and inclination.
		Is the unit affected by wind or vibrations?	Take an appropriate measure to eliminate wind and vibrations, or move the unit to a place without the influence.
	The indication of weighing values is unstable.		Replace the load cell or board with a new one.

DP-6700 Technical Manual

DP-6700 Technical Manual

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