Technical Manual

PPC-200W-II

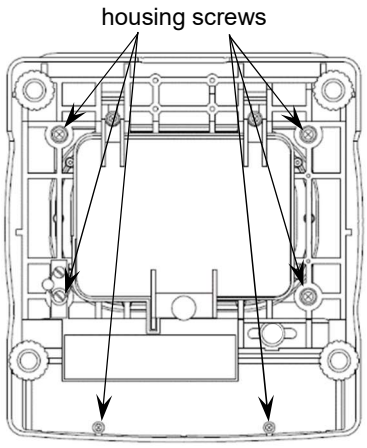
1. Enter Test Mode

Test mode provides access to calibration, and to system and factory parameter modes. Test Mode is only accessible by opening the scale and shorting the test mode jumpers.

Follow the steps below to perform Open the scale correctly.

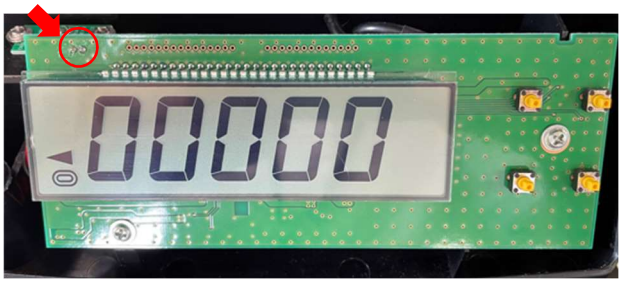
Opening the Scale

1. Remove the scale platform. Place the scale on its side and remove the six screws (see drawing) to the upper housing from the scale undercarriage.



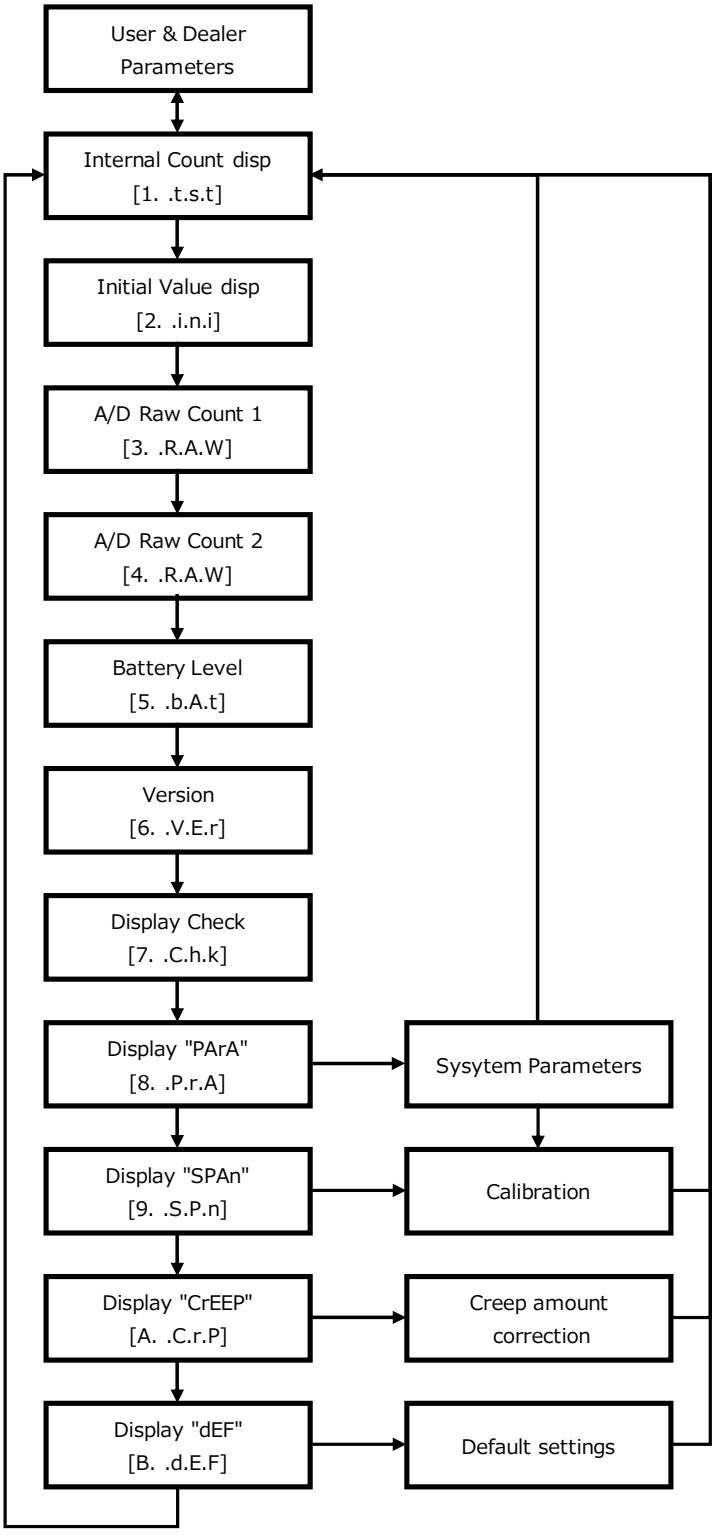
2. Gently lift the upper housing up and place it to the side.

3. Power the scale on and short the test jumper pins on the left side of the main board above the LCD display. The Test Mode indicator and internal counts will display.



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

TEST MODE



2. Changing Parameters

NOTE) The setting method for each parameter mode is the same.

Once in parameter mode use the →0← key to select the desired parameter, then use the G/N and →T← keys to change the set value to the desired value. The arrows above these keys indicate their function. Once the parameter value has been changed, press the →0← key again to save the change. After all the desired parameter changes have been made, press the ⏻ key. It is now ready for use with the changes in effect.

User Parameters

With the scale on and in the normal display mode, press →0← + →T← to enter User parameter mode.

#	Function	Value	Description
05	Auto-off Timer (When operating the battery)	0: 1: 2: 3: 4: 5:	No Auto power 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
07	Blinking of weight display	0: 1: 2: 3: 4: 5:	No blinking Blinks at underweight (Blinks when grading is stable) Blinks at acceptable weight (Blinks when grading is stable) Blinks at overweight (Blinks when grading is stable) Blinks at under & over weight (Blinks when grading is stable) Blinks with the parameter #03 settings. (Blinks when grading is stable)
08	Switching weighing	0: 1:	Additive grading (Judgment / communication when place) Subtractive grading (Judgment and communication when lowered. Judgment even when placed.)
10	Scale ID	0～99:	ID for scale identification during communication (default 0)
11	Determining timing for communication and	0: 1: 2: 3: 4: 5: 6:	No serial interface Automatic transmission (Send at stability) Automatic transmission (Send at stability) Manual transmission (Send with G/N key) Automatic transmission (Send when stable in Acceptable range) Manual transmission (When it is stable in the Acceptable range, press G/N to send) Continuous transmission
	subtraction check weighing	0: 1: 2: 3: 4: 5: 6:	(not available) Automatically confirmed (When stable) (not available) Manually confirm (When stable, press hold down the G/N key) Automatically confirmed (When stable in Acceptable range) Manually confirm (When it is stable in the Acceptable range, press hold down the G/N key to confirm) (not available)

#	Function	Value	Description
13	Communication device	0: 1: 2: 3: 4: 5: 6:	Bluetooth (Yamato standard protocol) (not available) RS232C (Yamato standard protocol) (not available) Bluetooth wireless printer（for designated model） No communication (not available)
14	Send contents	0: 1: 2:	Net weight Net weight, Tare weight, Gross weight Net weight, Tare weight
15	Baud rate	0: 1: 2: 3: 4: 5: 6: 7:	9600bps 2400bps 4800bps 9600bps 19200bps 38400bps 57600bps 115200bps
16	Character length	0: 1:	8 bit 7 bit
17	Parity	0: 1: 2:	Non Odd Even
18	Stop bit length	0: 1:	1 bit 2 bit
21	Bluetooth™ mobile printer	0: 1:	(not available, Japan only) Brother / RJ-3150
22	Print font size	0: 1: 2:	Standard size About 1.5 times the standard size About twice the standard size
23	[SEnd] display time	0: 1～8:	No [Send] display Display [Send] for a specified second when sending data (default 1)
24	Units at power on	0: 1: 2: 3:	kg lb oz lb-oz
26	Date and time data transmission	0: 1:	Not include date and time data Including date and time data (related #29)
27	Set value data transmission	0: 1:	Not include function setting value data Include function setting value data
28	Paper feed amount each time	0: 1～15:	None Skip a specified line (default 1)
29	Wireless printer print characters	0: 1: 2:	Japanese English（GBR） English（USA）
36	Value indication time for subtractive Checkweighing	0: 1～30:	No delay Delay 0.1 to 3.0 seconds (default 10: Delay 2.0 seconds)
L8	Tare reminder function	0: 1:	Tare reminder function OFF Tare reminder function ON

Dealer Parameters

Enter test mode. With the display showing internal counts, press →0← + →T← to enter User + Dealer parameter mode.

#	Function	Value	Description
60	Type of decimal point	0: 1:	Decimal point Comma
81	Packing weighing function	0: 1:	Invalid Valid
82	Checkweighing function	0: 1:	Invalid Valid
83	Grading function	0: 1:	Invalid Valid
84	Counting function	0: 1:	Invalid Valid
85	Reserved		* Do not change the settings
88	Span adjustment time delay	0～10:	No time delay Get a span value after the speciied time (sec.)
A7	Display of "lb:oz" unit	0: 1:	Valid "lb:oz" display Invalid "lb:oz" display
A9	Continuous transmission type	0: 1:	Send every 200ms (nomal) Send every stable (use TDW)
B5	Transmission of AD value	0: 1: 2: 3～4:	Not send RAW (Before and after the moving average) Before and after the Flicker prevention (Setting prohibited)
B9	Auto-tare delay, subtracting grading	0～99:	Delay time (x10ms)
C7	Preset Tare function	0: 1:	Invalid Valid
C8	Recommended calibration method	0～2: 3: 4: 5: 6: 7:	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	Reserved		* Do not change the settings
D0	Reserved	0: 1:	Invalid Valid
D1	MF setting value editing prohibited	0: 1:	MF setting value edit permission MF setting value editing prohibited
D9	Checksum compensation	0～255:	Correction value to make checksum unique after defaulting
E0	System ID	0:	fixed
E5	Moving average filter 1	0～7:	MOVING AVERAGE TAP NO. (INVALID LESS THAN 2)
E6	Moving average filter 2	0～7:	MOVING AVERAGE TAP NO. (INVALID LESS THAN 2)
E7	Moving average filter 3	0～16:	MOVING AVERAGE TAP NO. (INVALID LESS THAN 2)
E8	Moving average filter 4	0～16:	MOVING AVERAGE TAP NO. (INVALID LESS THAN 2)
E9	Moving average filter 5	0～15:	MOVING AVERAGE TAP NO. (INVALID LESS THAN 2)
F0	Loading / unloading amount	1～255:	
F2	One-time addition	0: 1:	Addition any number of times One-time addition
F9	Flicker prevention	0～15:	

System Parameters

With the display showing internal counts, press →0← + G/N to enter calibration mode, then press →T← + →0← to enter System parameter mode.

#	Function	Value	Description
40	Gravity compensation	0: 1～29: 30～210:	No compensation * Japa only (Acceleration of Gravity (m/s2) - 9.7600) x 10,000 ÷ 5 + 30 Setting range; 9.7600～9.8500m/s2, Min. setting unit; 0.0005m/s2
41	Scale mode	0: 1: 2: 3～7:	Fixed single increment Mult increments YCO Mode Prohibit to set
43	Weighing capacity mantissa, kg	0～99:	
44	Weighing capacity index, kg	0～4:	
45	Small capacity increment, kg	0: 1: 2:	1 2 5
46	Location of decimal point, kg	0: 1: 2: 3: 4:	0 0.0 0.00 0.000 0.0000
47	Verification	0: 1:	Legal use Not Legal use
48	User mode calibration	0: 1:	Invalid Valid
50	kg or lb calibration	0: 1:	Calibration by kg weight Calibration by lb weight
51	Weighing capacity mantissa, lb	0～99:	
52	Weighing capacity index, lb	0～4:	
53	Location of decimal point, lb	0: 1: 2: 3:	0 0.0 0.00 0.000
54	Small capacity increment, lb	0: 1: 2:	1 2 5
55	Weighing capacity mantissa, oz	0～99:	
56	Weighing capacity index, oz	0～4:	
57	Location of decimal point, oz	0: 1: 2: 3:	0 0.0 0.00 0.000
58	Small capacity increment, oz	0: 1: 2:	1 2 5

#	Function	Value	Description
61	Weighing unit	0: 1: 2:	None g kg
62	Weighing unit display	0: 1:	No unit display Unit display
63	Reserved		* Do not change the settings
64	Reserved		* Do not change the settings
65	Internal Resolution	0～100:	
67	ADC cutoff bit No.	0～3: 4～7:	6-bit truncation Truncate the specified number of bits
68	Over scale	0～10:	
69	Adjustment: Weighing capacity mantissa	0～99:	Capacity setting for span adjustment
70	Zero point range (FS%)	0～100:	SET ZERO POINT RANGE IN % FOR FULL SCALE
71	Positive zero point range %	0～100:	VALUE ON PLUS SIDE WITHIN THE SETTING RANGE ON #70
72	Zero key tare	0: 1:	Not clear tare value by pressing Zero reset key Clear tare value by pressing Zero reset key
73	Zero tracking timing	0: 1～15:	No zero tracking Zero tracking at the specified interval
74	Tare function	0: 1: 2:	No tare function One time tare function Consecutive tare function
75	Zero reset under tare	0: 1:	Valid Invalid
77	Simple test mode	0: 1: 2: 3: 4: 5:	Entered by key operation only Entered by key operation only, User parameter is invalid Entered by key operation & TEST switch Entered by key operation & TEST switch, User parameter is invalid Entered by TEST switch only (key operation is invalid) Entered by TEST switch only, User parameter is invalid
78	Model	0: 1: 2:	UDS-211W UDS-211Be PPC-200W-II
86	Reserved		* Do not change the settings
87	Reserved		* Do not change the settings
89	Reserved		* Do not change the settings
90	Mechanical zero 1	0～255:	Automatically set at span adjustment (Prohibit to change)
91	Mechanical zero 2	0～255:	Automatically set at span adjustment (Prohibit to change)
92	Mechanical zero 3	0～255:	Automatically set at span adjustment (Prohibit to change)
93	Span coefficient 1, small	0～255:	Automatically set at span adjustment (Prohibit to change)
94	Span coefficient 2, small	0～255:	Automatically set at span adjustment (Prohibit to change)
95	Span coefficient 3, small	0～255:	Automatically set at span adjustment (Prohibit to change)
96	Span coefficient 1, middle	0～255:	Automatically set at span adjustment (Prohibit to change)
97	Span coefficient 2, middle	0～255:	Automatically set at span adjustment (Prohibit to change)
98	Span coefficient 3, middle	0～255:	Automatically set at span adjustment (Prohibit to change)
99	Span coefficient 1, large	0～255:	Automatically set at span adjustment (Prohibit to change)
A0	Span coefficient 2, large	0～255:	Automatically set at span adjustment (Prohibit to change)
A1	Span coefficient 3, large	0～255:	Automatically set at span adjustment (Prohibit to change)
A2	Span adjustment zone	0～210:	Automatically set at span adjustment (Prohibit to change)
A3	Span adjustment method	0～7:	Automatically set at span adjustment (Prohibit to change)

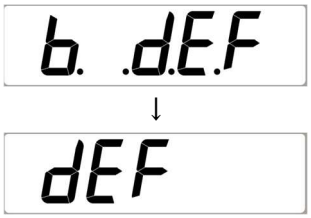
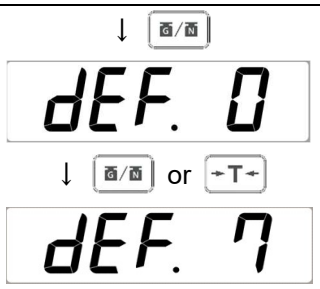
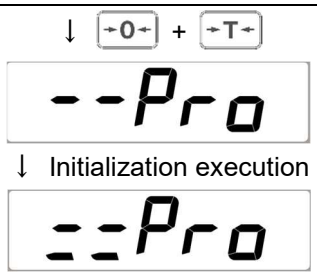
#	Function	Value	Description
A4	Board sensitivity adjustment 1, zero	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
A5	Board sensitivity adjustment 2, zero	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
A6	Board sensitivity adjustment 3, zero	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
B0	Factory setting	0: 1～6: 7: 8: 9: 10: 11:	Not use default setting for another market 2kg / 0.001kg, NTEP 4kg / 0.002kg, NTEP 10kg / 0.005kg, NTEP 20kg / 0.01kg, NTEP for another market
B1	Initialization number	1～16	Record the setting number at the time of "dEF"
B4	Reserved		* Do not change the settings
B6	Board sensitivity adjustment 1, span	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
B7	Board sensitivity adjustment 2, span	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
B8	Board sensitivity adjustment 3, span	0～255:	Automatically set at board sensitivity adjustment (Prohibit to change)
C0	Creep amount correction：coefficient	0～255:	0:OFF, 1～127:plus, 128～255:minus
C1	Creep amount correction：Time constant	0～255:	Time constant of correction curve
C2	Creep amount correction：Linearity	0～10:	Linearity of correction curve
C3	Maximum hysteresis amount when going up	0～255:	
C4	Maximum hysteresis amount when descending	0～255:	
C5	Minus Display	0: 1:	Up to 5 division Up to 1.9% of F.S
D2	Creep amount individual correction: measurement time	0～30:	0 to 30 minutes: Waiting time for individual creep adjustment
D3	Creep amount correction: conversion coefficient	0～255:	0～2.55: Coefficient to convert creep in # D2 time to 30 minutes when adjusting creep individually
D4	Creep amount correction: self-diagnosis threshold	0～255:	-128～+127（255 → -1） When calculating creep individually, if calculated # C0 is not between 0 and the set value, "E-118"
D6	Median filter		
D7	Reserved		* Do not change the settings
E1	Stable state sampling count	0～15:	Number of times to detect whether it is stable within the width set by # E2 and # E3
E2	Stable state count	0～50:	Set the width to enter stability
E3	Very stable state count	0～50:	Set the width to enter extremely stable, which is stricter than stable
E4	Stable state collapse count	0～50:	Set the width to break stability
L0	Center of zero indicator	0: 1:	The Center of zero indicator is displayed even during tare The Center of zero indicator is not displayed even during tare
L1	Reserved		* Do not change the settings

3. Default setting

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

The following table shows the initial setup values before shipment by type/weighing capacity.

If you replace the CPU board, make sure to initialize the board using a setup value (Initialize from 12 to 16 in Default setting mode (enter [B. .d.E.F])) corresponding to the type of your scale. Then, make necessary changes and confirm that the parameter values are equal to those in the table.

Description	Indication
Press the [→T←] to move the test mode item to the default setting.	
Press the [G/N] to enter the default settings. Press the [G/N] or [→T←] to set the initialization number.	
Hold down the [→0←] and press the [→T←] to initialize.	
When the initialization is completed, it automatically returns to the Internal count.	

		2kg / 0.001kg	4kg / 0.002kg	10kg / 0.005kg	20kg / 0.01kg	10kg / 0.002kg *non-NTEP
#	Function	dEF = 7	dEF = 8	dEF = 9	dEF = 10	dEF = 12
#01	Reserved	0	0	0	0	0
#02	Reserved	0	0	0	0	0
#04	Reserved	1	1	1	1	1
#05	Auto-off timer	3	3	3	3	3
#06	Reserved	5	5	5	5	5
#07	Blinking of weight display	0	0	0	0	0
#08	Switching weighing	0	0	0	0	0
#09	Gravity compensation	105	105	105	105	105
#10	Scale ID	0	0	0	0	0
#11	Determining timing for communication and subtraction check weighing	3	3	3	3	3
#13	Communication device	5	5	5	5	5
#14	Send contents	0	0	0	0	0
#15	Baud rate	0	0	0	0	0
#16	Character length	0	0	0	0	0
#17	Parity	0	0	0	0	0
#18	Stop bit length	0	0	0	0	0
#21	Bluetooth™ mobile printer	1	1	1	1	1
#22	Print font size	0	0	0	0	0
#23	[SEnd] display time	1	1	1	1	1
#24	Units at power on	1	1	1	1	3
#26	Date and time data transmission	1	1	1	1	1
#27	Set value data transmission	1	1	1	1	1
#28	Paper feed amount each time	1	1	1	1	1
#29	Wireless printer print characters	2	2	2	2	2
#36	Value indication time for subtractive Checkweighing	10	10	10	10	10
#37	Reserved	0	0	0	0	0
#38	Reserved	0	0	0	0	0
#39	Reserved	4	4	4	4	4
#40	Gravity compensation	105	105	105	105	105
#41	Scale mode	2	2	2	2	2
#43	Weighing capacity mantissa, kg	2	4	10	20	10
#44	Weighing capacity index, kg	3	3	3	2	3
#45	Small capacity increment, kg	0	1	2	0	1
#46	Location of decimal point, kg	3	3	3	2	3
#47	Verification	0	0	0	0	0
#48	User mode calibration	0	0	0	0	0
#50	kg or lb calibration	1	1	1	1	1
#51	Weighing capacity mantissa, lb	4	10	20	40	20
#52	Weighing capacity index, lb	3	3	2	2	3
#53	Location of decimal point, lb	3	3	2	2	3

		2kg / 0.001kg	4kg / 0.002kg	10kg / 0.005kg	20kg / 0.01kg	10kg / 0.002kg *non-NTEP
#	Function	dEF = 7	dEF = 8	dEF = 9	dEF = 10	dEF = 12
#54	Small capacity increment, lb	1	2	0	1	2
#55	Weighing capacity mantissa, oz	5	10	20	50	20
#56	Weighing capacity index, oz	2	1	1	1	1
#57	Location of decimal point, oz	2	1	1	1	1
#58	Small capacity increment, oz	2	0	1	2	0
#60	Type of decimal point	0	0	0	0	0
#61	Weighing unit	2	2	2	2	2
#62	Weighing unit display	1	1	1	1	1
#63	Reserved	0	0	0	0	0
#64	Reserved	0	0	0	0	0
#65	Internal Resolution	10	10	10	10	10
#67	ADC cutoff bit No.	5	5	5	5	5
#68	Over scale	5	5	5	5	5
#69	Adjustment: Weighing capacity mantissa	2	4	10	20	10
#70	Zero point range (FS%)	19	19	19	19	19
#71	Positive zero point range %	12	12	12	12	12
#72	Zero key tare	0	0	0	0	0
#73	Zero tracking timing	0	0	0	0	0
#74	Tare function	2	2	2	2	2
#75	Zero reset under tare	1	1	1	1	1
#77	Simple test mode	2	2	2	2	2
#78	Model	2	2	2	2	2
#81	Packing weighing function	0	0	0	0	0
#82	Checkweighing function	1	1	1	1	1
#83	Grading function	0	0	0	0	0
#84	Counting function	0	0	0	0	0
#85	Reserved	0	0	0	0	0
#86	Reserved	2	2	2	2	2
#87	Reserved	0	0	0	0	0
#88	Span adjustment time delay	2	2	2	2	2
#89	Reserved	3	3	3	3	3
#90	Mechanical zero 1	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#91	Mechanical zero 2	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#92	Mechanical zero 3	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#93	Span coefficient 1, small	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#94	Span coefficient 2, small	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#95	Span coefficient 3, small	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#96	Span coefficient 1, middle	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#97	Span coefficient 2, middle	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#98	Span coefficient 3, middle	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#99	Span coefficient 1, large	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A0	Span coefficient 2, large	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A1	Span coefficient 3, large	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)

		2kg / 0.001kg	4kg / 0.002kg	10kg / 0.005kg	20kg / 0.01kg	10kg / 0.002kg *non-NTEP
#	Function	dEF = 7	dEF = 8	dEF = 9	dEF = 10	dEF = 12
#A2	Span adjustment zone	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A3	Span adjustment method	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A4	Board sensitivity adjustment 1, zero	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A5	Board sensitivity adjustment 2, zero	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A6	Board sensitivity adjustment 3, zero	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#A7	Display of "lb:oz" unit	0	0	0	0	0
#A9	Continuous transmission type	0	0	0	0	0
#B0	Factory setting	0	0	0	0	0
#B1	Initialization number	7	8	9	10	12
#B2	Reserved	1	1	1	1	1
#B4	Reserved	0	0	0	0	0
#B5	Transmission of AD value	0	0	0	0	0
#B6	Board sensitivity adjustment 1, span	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#B7	Board sensitivity adjustment 2, span	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#B8	Board sensitivity adjustment 3, span	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#B9	Auto-tare delay, subtracting grading	25	25	25	25	25
#C0	Creep amount correction：coefficient	38	35	5	5	5
#C1	Creep amount correction：Time constant	10	10	5	5	5
#C2	Creep amount correction：Linearity	2	2	2	2	2
#C3	Maximum hysteresis amount when going up	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#C4	Maximum hysteresis amount when descending	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#C6	Minus Display	0	0	0	0	0
#C7	Preset Tare function	0	0	0	0	0
#C8	Recommended calibration method	4	4	4	4	4
#C9	Reserved	(AUTO)	(AUTO)	(AUTO)	(AUTO)	(AUTO)
#D0	Reserved	0	0	0	0	0
#D1	MF setting value editing prohibited	1	1	1	1	1
#D2	Creep amount individual correction: measurement time	5	5	5	5	5
#D3	Creep amount correction: conversion coefficient	123	123	123	123	123
#D4	Creep amount correction: self-diagnosis threshold	90	90	90	90	90
#D6	Median filter	1	1	1	1	1
#D7	Reserved	0	0	0	0	0
#D9	Checksum compensation	250	250	250	250	250
#E0	System ID	0	0	0	0	0
#E1	Stable state sampling count	13	13	13	13	13
#E2	Stable state count	4	4	4	4	4
#E3	Very stable state count	2	2	2	2	2
#E4	Stable state collapse count	10	10	10	10	10
#E5	Moving average filter 1	4	4	4	4	4
#E6	Moving average filter 2	5	5	5	5	5
#E7	Moving average filter 3	7	7	7	7	7
#E8	Moving average filter 4	9	9	9	9	9

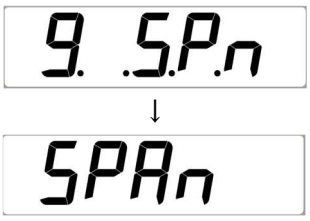
		2kg / 0.001kg	4kg / 0.002kg	10kg / 0.005kg	20kg / 0.01kg	10kg / 0.002kg *non-NTEP
#	Function	dEF = 7	dEF = 8	dEF = 9	dEF = 10	dEF = 12
#E9	Moving average filter 5	13	13	13	13	13
#F0	Loading / unloading amount	3	3	3	3	3
#F2	One-time addition	1	1	1	1	1
#F9	Flicker prevention	8	8	8	8	8
#L0	Center of zero indicator	1	1	1	1	1
#L1	Reserved	0	0	0	0	0
#L8	Tare reminder function	0	0	0	0	0

4. Calibrate the scale

Calibration can be done with pound or kilogram weights. Pound weights are the default setup, but this can be changed through System parameter 50.

The adjustment corrects the hysteresis due to the load and unloading of the sensor. Therefore, follow the procedure below.

NOTE) An example is when a kg weight is used and the weighing capacity is adjusted to 2 kg.

Description	Indication
Press the [→T←] to move the test mode item to the Span adjustment.	
Press the [⊙/⊘] key if you want to change the number of calibration points. Ensure there is nothing on the platform, then press the [→T←] key while the stable indicator is displayed.	↓ [⊙/⊘] 
Place one half of the scale's full capacity on the platform. * Displayed by a temporary coefficient. Press the [→T←] key while the stable indicator is displayed.	 ↓  ↓ [→T←] 
Place the scale's full capacity on the platform. Press the [→T←] key while the stable indicator is displayed.	 ↓ [→T←] 
Remove one half of the scale's full capacity on the platform. Press the [→T←] key while the stable indicator is displayed.	 ↓ [→T←]
When the calibration is completed, it automatically returns to the Internal count.	↓ Span adjustment completed  ↓ 

Description	Indication
If the scale displays error 103 the scale is either misconfigured, incorrect weights were use for the calibration, or the scale may be damaged. Check that the weights are one half of capacity, and full capacity.