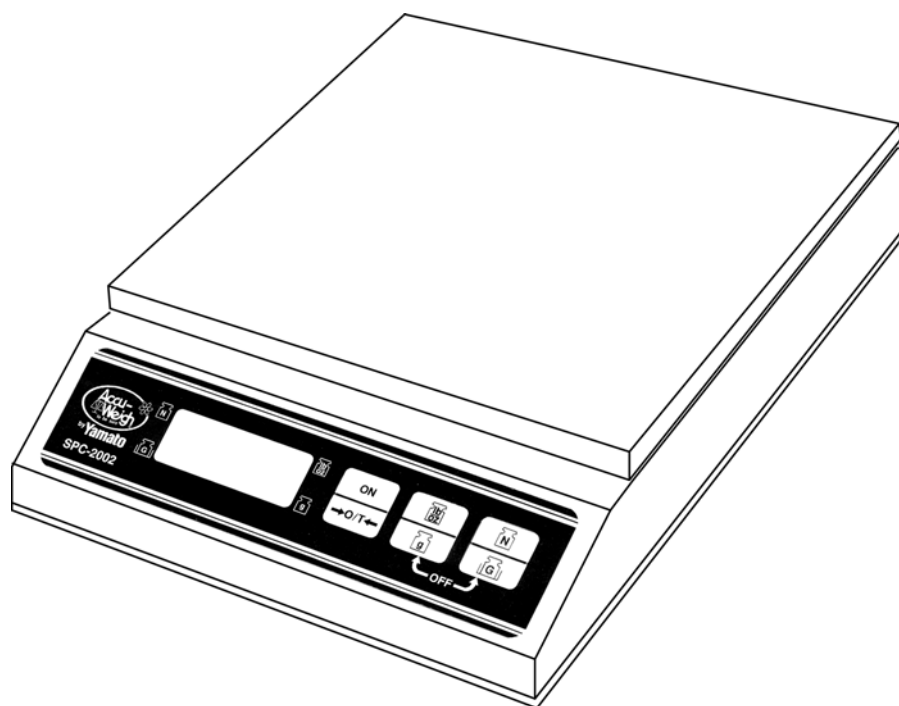


## Digital Food Scales



by **Yamato**

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## Table of Contents

I. Introduction	1
II. Set-up	1
III. Calibration	2
IV. Troubleshooting	3
V. Wiring Diagram	4
VI. Parts List	5

## SAFETY INSTRUCTIONS

Before using the scale, carefully read, understand and follow the "Safety Instructions" described in this manual. Observe the advice given in the Operation Manual to ensure proper operation. Keep this Technical Manual handy for reference.

- 1) This scale is **not** an explosion-proof model. Do not use the scale in an atmosphere containing flammable gases or explosive fumes. A fire or an explosion can result.
- 2) Do not operate the scale if there is smoke or a burned smell coming from the scale. Unplug the scale immediately. After making sure that there is no danger, consult your dealer. Never try to repair the scale by yourself.
- 3) Never step on or sit on the scale. Not only will the scale be damaged, but you may also be injured.
- 4) Place the item to be weighed in the center of the platform. Items placed on the edge of the platform may fall off and cause injury.
- 5) When weighing a heavy, large or unbalanced item, make sure the item is stable on the platform, otherwise, an accident may occur.
- 6) When carrying or moving the scale, be sure to hold it by the bottom of the base with both hands. If you hold it by the platform, the platform or the platform support may become detached causing the scale to fall. This will damage the scale. The platform is designed for easy removal and cleanup.
- 7) Do not insert your finger into the gaps or holes in the scale. You may be injured.

## I Introduction

The SPC is a split range scale. It displays units of pounds and fractional ounces, decimal pounds, continuous ounces, and grams. Two of these units can be selected by the dip switch setting (see section II). The specifications for each unit are in the following tables.

### SPC-2002

Lower Range	Increment	Upper Range	Increment
0.0 lb to 2.2 lb	0.002 lb	2.2 to 4.4 lb	0.005 lb
0 oz to 35 oz	0.05 oz	35 oz to 70 oz	0.1 oz
0 lb 0 oz to 2 lb 3 oz	1/8 oz	2 lb 3 oz to 4 lb 6 oz	1/4 oz
0 g to 1000 g	1 g	1000 to 2000 g	2 g

### SPC-5005

Lower Range	Increment	Upper Range	Increment
0.0 lb to 5.5 lb	0.005 lb	5.5 to 11.0 lb	0.01 lb
0 oz to 88 oz	0.1 oz	88 oz to 176 oz	0.2 oz
0 lb 0 oz to 5 lb 8 oz	1/4 oz	5 lb 8 oz to 11 lb 0 oz	1/2 oz
0 g to 2500 g	2 g	2500 to 5000 g	5 g

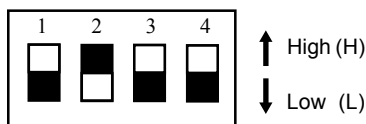
The SPC can be powered by 6-AA alkaline batteries, a 9V transistor battery or an AC adaptor.

ALWAYS reconnect the AA battery holder when using the AC adaptor to prevent ELECTRICAL SHORTING. Yamato recommends that the batteries be removed when the AC adaptor is being used. Use only the AC adaptor supplied or an adaptor of the same output characteristics.

The SPC has an automatic-off feature that will turn off the scale after two minutes of non-use. The feature is enabled and disabled by the dip switch setting (see section II).

## II Set-up

Remove the rectangular plug at the rear of the scale to expose the four place dip switch shown below.



Example: Decimal lb / g mode with g displayed at power up, auto-off feature disabled.

Dip Switch functions:

Switch 1 and 2 select  
units of measure

Switch 3 selects  
gram/lb-oz preference  
at power up

Switch 4 controls  
auto-off feature

1	2
H	H
H	L
L	H
L	L

Switch#  
lb-oz / g  
cont. oz / g  
dec. lb / g  
gram only

3
H
L

Switch#  
lb-oz mode  
gram mode




4
H
L


Switch#  
disable auto-off  
enable auto-off\*

\*The scale will shut off after  
2 minutes of non-use.

Set the switches to the desired combination and replace the rectangular plug.

## III Calibration

1. With the scale off, hold down the  key and press the  key three times. Release the  key. The scale should be displaying the internal counts.





2. Press the  key to zero the counts.




3. Place 2 kg, 4.41 lb or 70.5 oz (SPC-2002), or 5 kg, 11.02 lb or 176.4 oz (SPC-5005) on the scale platform. The counts should read 15,000 to 18,000 counts.

**NOTE:** The SPC displays 10,000 as 0000<sup>1</sup>. The most significant bit appears in the upper right hand corner.



4. Press the  key. The display will read "CAL" for about four seconds.



5. The scale should return to normal operating mode and display the calibration weight.

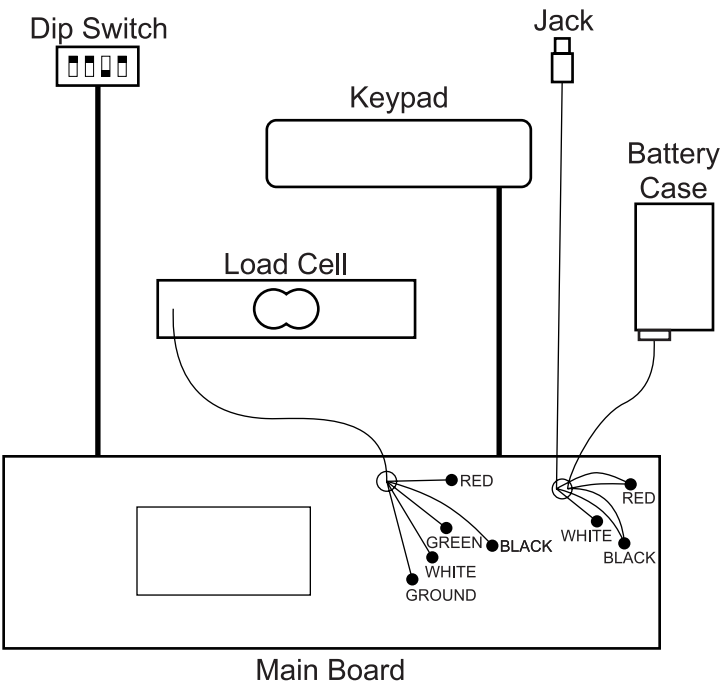


6. Remove the weight from the scale platform. The display should indicate zero grams.

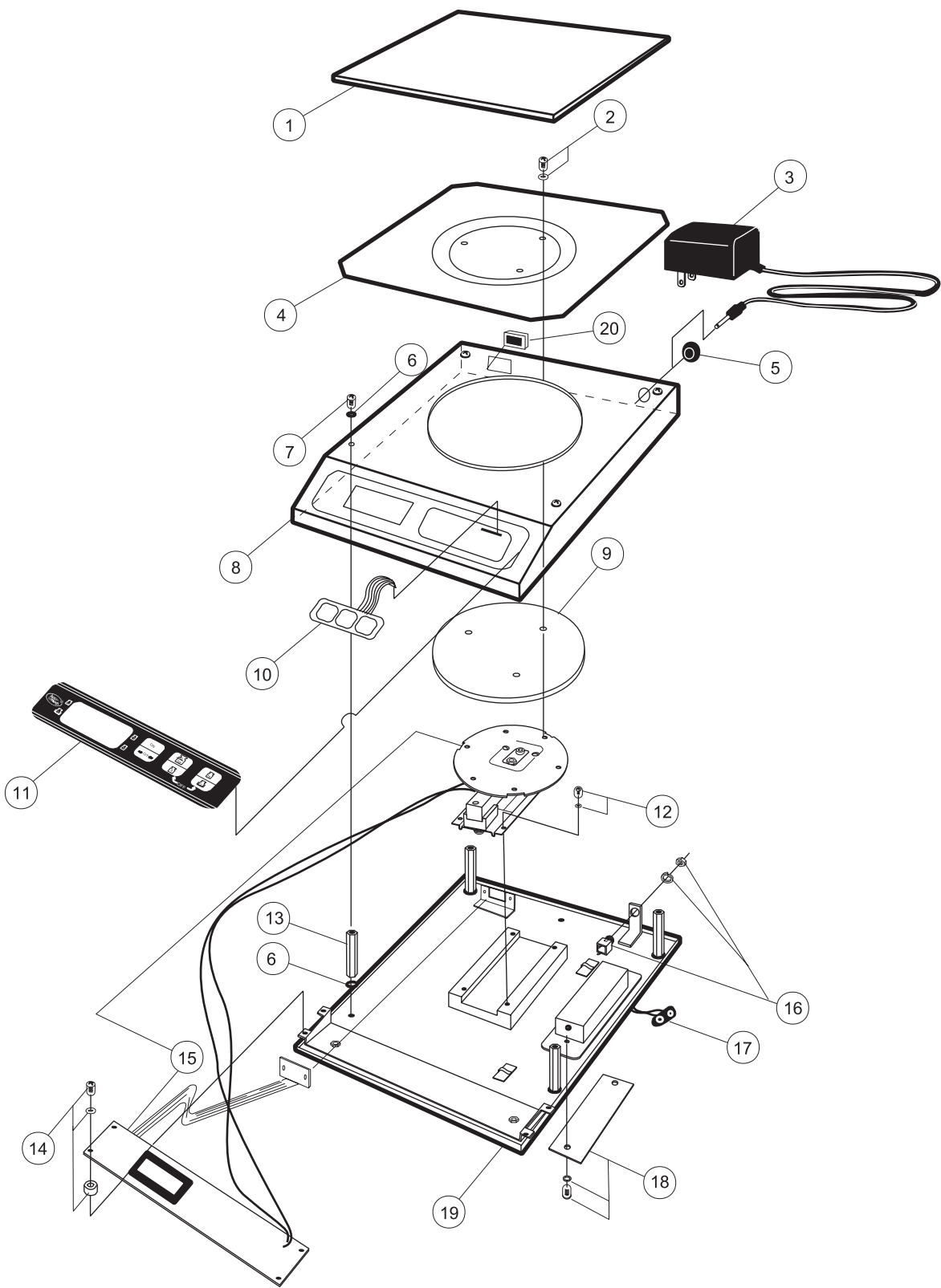
## IV Troubleshooting

Problem	Possible Cause	Solution
The scale will not power on.	Batteries dead or incorrectly installed. AC adapter loose or malfunctioning. CPU board malfunction.	Test batteries. Reinstall if needed. Reseat adapter. Replace if needed. Replace CPU board.
The display continues to display four eights after the scale is turned on.	Vibration or an unstable position or platform.	Remove source of vibration or place scale on stable platform.
“Err” appears upon power up.	Platform weight too high.	Clear platform and restart.
“ErrL” appears upon power up.	Platform weight too low.	Remove platform, clear away any debris and reinstall platform.
“Lo” displayed.	Low batteries.	Install new batteries.
The displayed weight fluctuates excessively.	Material between the platform and the scale body. Weighing assembly in contact with wires or case. Load cell connector loose or damaged. Power board malfunction. CPU board malfunction.	Remove material.  Reposition wires, case or platform. Reconnect or replace the load cell connector. Replace power board. Replace CPU board.

V Wiring Diagram



VI Parts List



## VI Parts List

ITEM	PART #	DESCRIPTION	QTY.
1	SHA-1520-001010	Cover, SS, Platform	1
2	MCH-5000-001020	Screw/Washer Assembly, Platform Plate	1
3	CHA-1550-200230	Adaptor, AC	1
4	SHA-1520-001030	Plate, Platform Support	1
5	SHA-1520-001050	Plug, Rubber, AC Adaptor	1
6	SHA-1520-001020	Washer, Rubber, .25 x .25 x .044	8
7	MCH-5000-001040	Screw/Washer, Upper Housing	4
8	SHA-1520-001060	Housing, Upper	1
9	SHA-1520-001070	Cover, Loadcell	1
10	SHA-1520-001093	Membrane, K-switch	1
11	SHA-1520-002094	Front Mask, SPC-2002	1
	SHA-1520-002095	Front Mask, SPC-5005	1
12	SHA-1520-001075	Screw/Washer Assembly, Loadcell	4
13	SHA-1520-001080	Standoff, Housing	4
14	SHA-1520-001120	Screw/Washer/Spacer Assembly, CPU Board	4
15	SHA-1520-002101	Loadcell/CPU Board Assembly, SPC-2002	1
	SHA-1520-002106	Loadcell/CPU Board Assembly, SPC-5005	1
16	SHA-1520-001110	AC Jack Assembly	1
17	SHA-1520-001040	Battery Connector	1
18	SHA-1520-001140	Cover, Battery, Assembly	1
19	SHA-1520-001130	Base Assembly	1
20	SHA-1520-001053	Plug, Rubber, Dip Switch	1
NP	SHA-1520-001055	Foot, Rubber	4
NP	SHA-1520-001160	Holder, Battery	1

NP = Not Pictured