DSR-400 Technical Manual

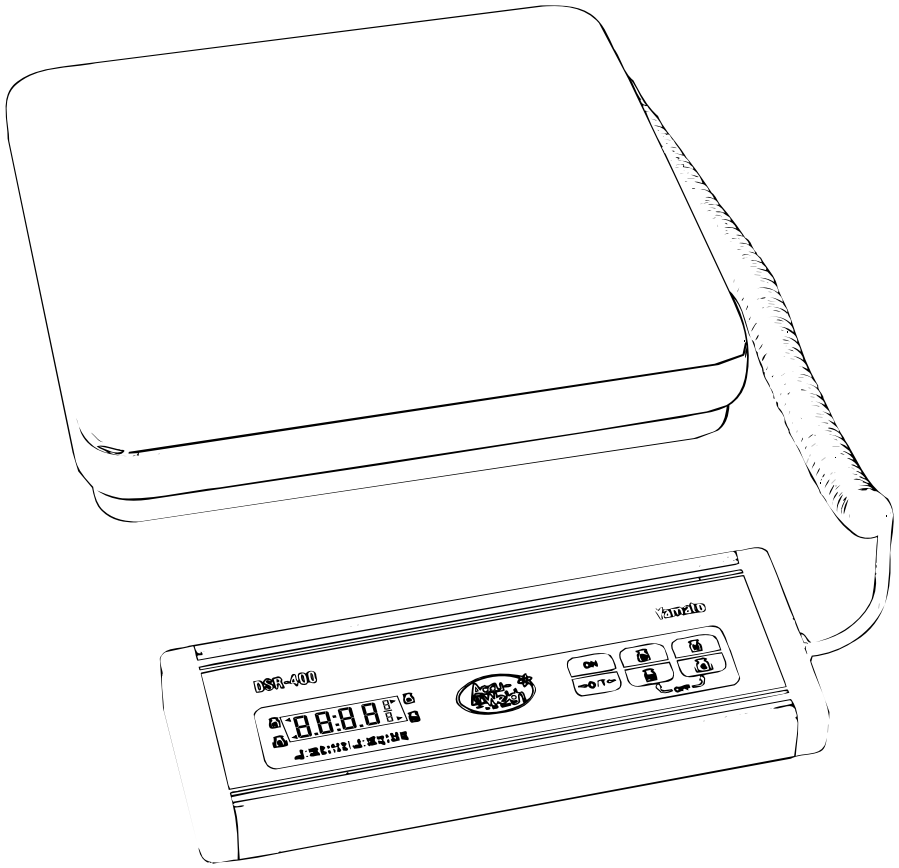

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Table of Contents

I. Introduction 1

II. Set-up Procedures 1
A. Setting Auto-Off 1
B. Calibration 2

III. Troubleshooting 3

IV. Wiring Diagram 3

SAFETY INSTRUCTIONS

Before using the scale, carefully read, understand and follow the “Safety Instructions” described in this manual. Observe the advice given in every section to ensure proper operation. Keep this 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 DSR-400 displays units of pounds and kilograms. The specifications for each unit are in the following table.

Capacity	Increment	Maximum Tare
0 lb - 220 lb	0.5 lb	Full Scale
220 lb - 400 lb	1.0 lb	Full Scale
0 kg - 100.0 kg	0.2 kg	Full Scale
100 kg - 180.0 kg	0.5 kg	Full Scale

The DSR-400 can be powered by 6-AA batteries or by an AC adapter. Use only the AC adaptor supplied or an adaptor of the same output characteristics. While operating the DSR-400 on batteries, an automatic-off feature is enabled. It will turn off the scale after two minutes of non-use unless the feature is disabled. The automatic-off is set in Set-up Mode (see section II.A.)

II Set-up Procedures

II.A Setting Auto-Off

Set-up Mode is used to disable or enable the automatic-off feature.

1. Unscrew left side (side without the cord) of indicator and locate the Dip Switches.

   The following is the switch settings for the Dip Switches.

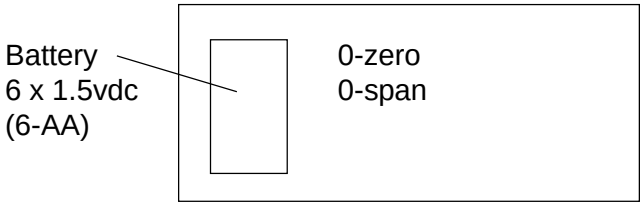
DIP SW No.	POSITION		FUNCTION
	ON	OFF	
DS1		*	GRAM UNITS &
DS2		*	DECIMAL Lb UNIT
DS3	*		Lb WHEN TURNED ON
DS4		*	AUTO OFF

   a) DS1 and DS2 MUST be switched OFF.
   b) DS3 The indicator starts up in pounds when the DIP switch is ON. The indicator will start up in kilograms when switched OFF.
   c) DS4 Auto shut off is enabled when switched OFF and disabled when switched ON.

II Set-up Procedures

II.B Calibration

1. APPLY POWER TO SCALE.
2. Remove the S.S. cover on platform.
3. Locate the Zero and Span trim pots in the center of the platform.



4. Short the TEST PINS (located on L/S of indicator).
   a. Initial count should be 875 cnts +/- 20 cnts.
   b. If the counts are out of the tolerance adjust zero trim pot to obtain count
   c. Depress on/off 0 key on the display.
   d. The following are the initial counts at the following Capacities.

CAPACITY	COUNTS
0	875 +/-
120 lb	544
200 lb	910
400 lb	1820

   e. If the COUNTS are not within range adjust SPAN trimpot to obtain the proper counts.

III 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.
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.

IV Wiring Diagram