



DMS Notice  
D-10-01R and W-10-01R

February 12, 2010

Discard: Retain

TO: WEIGHTS AND MEASURES OFFICIALS

**SUBJECT:** Revised Purchase and Sale of Scrap Precious Metals (jewelry or scrap)

A number of county weights and measures jurisdictions in California have reported an increase in fixed, temporary or non-fixed businesses where gold, silver and other precious metals are being bought and sold. Some businesses operate in private homes and others in the public. Counties are finding that most of these buyers are failing to license as weighmasters as required by law. In addition, some businesses are failing to:

- use suitable, approved legal-for-trade devices, tested and sealed by a weights and measures official or registered service agency
- position the device indicator so that both the seller and buyer can read the weight indication
- use a Registered Service Agent to install the weighing device
- pay registration fees to the county for each location ( e.g. hotel rooms, personal homes, mall kiosks) that the device will be put into service
- assure the device is in a level position

Consumers and weights and measures officials need to be aware of possible fraudulent transaction processes in this industry:

- rounding down weight indications
- improperly setting of a container tare
- incorrectly converting units of measures (e.g. truncating conversion factors)
- purchasing in less than true quantity and value
- misrepresenting the precious metal quality (e.g. 18k gold vs. 22k gold).

### **Weighmaster Issues**

Individuals engaged in the business of converting finished jewelry to scrap must meet weighmaster requirements.

The California Business and Professions Code, Section 12733 requires, *"In all cases where scrap metal and salvage materials are purchased or sold by dealers, brokers, or commission merchants on the basis of weight or measure,*



*the quantity of the scrap metal and salvage material shall be determined by a weighmaster, and a weighmaster certificate shall be issued to the seller and buyer. Settlement for the materials shall be made on the quantity shown thereon. If the quantity indications are readily accessible and clearly readable to both the buyer and seller, at the time of determination, a weighmaster certificate is required to be issued only when requested by the buyer or seller."*

Weighmaster certificates shall include all applicable information required in Section 12714, 12714.5 and 12715 of the Business and Professions Code.

County Weights and Measures offices are reimbursed for all new Weighmaster locations registered when they assist with the registration process.

### **Device Suitability Issues**

Business and Professions Code, Section 12717 states, *"Any weighing, measuring, or counting instrument or device, as defined in Section 12500, which is used by a weighmaster and for which specifications and tolerances have been adopted by the director, shall be approved, tested, and sealed in accordance with this division."*

Any purchase by a precious metal scrap dealer, broker, or commission merchant, must be determined on a scale appropriate for the transaction. The weighing device must meet the requirements of the CA Code of Regulations, Title 4 Division 9. Device factors to consider include:

- California or National Type Evaluation Program (NTEP) Certificate
- device accuracy class (i.e. Class II or Class III, etc.)
- capacity
- minimum division
- unit(s) of measure
- minimum load requirements

**See Attachment A.**

### **Testing and Sealing**

The Tables below will help determine the class of weights to use when testing and sealing a device that meets the CA Code of Regulations requirements:

See Attachment B for examples of Class I, II, and III types of devices where three verification tests are performed at 20%, 50%, and 80% of marked capacity.

### **Additional Enforcement Requirements and References**

In addition to the requirements described above, any individual engaged in the business of receiving goods, including used gold and silver jewelry, in pledge as security for a loan is a pawnbroker and is required to obtain a Pawnbrokers license

from the California Department of Justice. A licensed pawnbroker must notify local authorities (Police or Sheriff) of their intent to conduct business in their jurisdictions."

## References

Listed below are CA Business and Professions Code and CA Code of Regulations references to assist county weights and measures staff in the enforcement of precious metal and scrap jewelry (scrap metals) sales and purchases.

- *B&P Code, Section 12020, "Use of incorrect weight or measuring instrument"*
- *B&P Code, Section 12500(e), "Commercial purposes"*
- *B&P Code, Section 12500.5, "Approval and Certification of Commercial Instrument"*
- *B&P Code, Section 12500.10, "Removal of Unapproved Instruments"*
- *B&P Code, Section 12714, Legend Required on Weighmaster Certificate*
- *B&P Code, Section 12714.5, Weighmaster Certificate Clear and Legible with Consecutive Numbering*
- *B&P Code, Section 12715, Information Required on Weighmaster Certificate*
- *California Code of Regulations, Title 4, Division 9, Section 4085. Responsibility of a Service Agency, (a)(1) Repairing or Placing Devices into Service, (a)(2) Notice to County Sealer...*
- *B & P Code, Sections 21600-21610, "Junk Dealers"*
- *California Code of Regulations, Title 4, Division 9, Section 1.10 General Code, G-UR User Requirements , G-UR.1.1 Suitability of Equipment*
- *California Code of Regulations, Title 4, Division 9 General Code, G-UR User Requirements, G-UR.3 Use Requirements G-UR.3.3 Position of Equipment*
- *DMS Notice M-08-02*

CA Finance Code Div. 8 Pawnbrokers, Chapter 3 Licensure, Sections 21300-21307  
CA Business and Professions Code Div. 8, Special Business Regulations, Chapter 9  
Secondhand Goods, Sections 21625 -21647.

If you have any questions or need additional information regarding suitability testing and use of weighing devices contact Ronald Flores, for weighmaster issues, for scrap sales issues contact Laurene Chiesa, both can be reached by calling (916) 229-3000.

Sincerely,

Edmund E. Williams  
Director

Enclosure

cc: Kristin Macy, Director, County Liaison Office

**Attachment A.**

The Table below is an extract of CA Code of Regulations, Title 4, Division 9, Appendix C – General Tables of Units of Measurement and may be used to convert to the appropriate unit of measure for devices that do not display in pennyweight, gram, or troy ounce unit of measure (all underlined figures are exact).

<b>Units</b>	<b>Grams</b>	<b>Grains</b>	<b>Pennyweights</b>	<b>Avoirdupois Drams</b>
<b>1 grain</b> =	<u>0.064 798 91</u>	<u>1</u>	0.041 666 67	0.036 571 43
<b>1 apoth. Scruple</b>	<u>1.295 978 2</u>	<u>20</u>	0.833 333 3	0.731 428 6
<b>1 pennyweight</b> =	<u>1.555 173 84</u>	<u>24</u>	<u>1</u>	0.877 714 3
<b>1 avdp. dram</b> =	<u>1.771 845</u> <u>195 312 5</u>	<u>27.343 75</u>	1.139 323	<u>1</u>
<b>1 apoth. dram</b> =	<u>3.887 934 6</u>	<u>60</u>	<u>2.5</u>	2.194 286
<b>1 avdp. ounce</b> =	<u>28.349 523</u> <u>125</u>	<u>437.5</u>	18.229 17	<u>16</u>
<b>1 apoth. or troy oz.</b>	<u>31.103 476 8</u>	<u>480</u>	<u>20</u>	17.554 29
<b>1 apoth. or troy pound</b> =	<u>373.241 721</u> <u>6</u>	<u>5760</u>	<u>240</u>	210.651 4
<b>1 avdp. pound</b> =	<u>453.592.37</u>	<u>7000</u>	291.666 7	<u>256</u>
<b>1 milligram</b> =	<u>0.001</u>	0.015 432 36	0.000 643 014 9	0.000 564 383 4
<b>1 gram</b> =	<u>1</u>	15.432 36	0.643 014 9	0.564 383 4
<b>1 kilogram</b> =	<u>1000</u>	15432.36	643.014 9	564.383 4

**Attachment B.**

Balance 10g x 0.1g Class III (NIST HB 44, Section 2.20 Table 3)

Test Load	Maintenance Tolerance ( HB 44Table 6, Page 2-38)	Standard Tolerance (1/3 Maintenance)	Standard Class (DMS Notice M-08-02)
2 g (20% load)	0.1 g	33 mg	ASTM7 or Class F
5 g (50% load)	0.1 g	33 mg	ASTM7 or Class F
8 g (80% load)	0.1 g	33 mg	ASTM7 or Class F

1. Maintenance tolerance calculation 2 g:  $2 \text{ g} / 0.1 \text{ g} = 20$  division (d)
2. From NIST HB 44 Table 6: Class II with 0 to 500 divisions is 0.1 g maintenance tolerance
3. ASTM Class needed:  $1/3$  maintenance tolerance =  $0.1 \text{ g} / 3 = 0.033 \text{ g}$  or 33 mg
4. A 2 g standard must have a tolerance less than 33 mg.
5. From DMS Notice M-08-02, ASTM Class 7 has a tolerance less than 33 mg (ASTM Class 7 is approximately equivalent to NIST 105-1 Class F)

Balance 100 g x 0.001 g Class II (NIST HB 44, Section 2.20 Table 3)

Test Load	Maintenance Tolerance (HB 44 Table 6, Page 2-38)	Standard Tolerance (1/3 Maintenance)	ASTM Standard Class (DMS Notice M-08-02)
20 g (20% load)	2 mg	0.67 mg	3
50 g (50% load)	3 mg	1 mg	3
80 g (80% load)	3 mg	1 mg	2

1. Maintenance tolerance calculation 20 g:  $20 \text{ g} / 0.001 \text{ g} = 20000$  division (d)
2. From NIST HB 44 Table 6: Class II with 5001 to 20000 divisions is 0.002 g ( 2 mg) maintenance tolerance
3. ASTM Class needed:  $1/3$  maintenance tolerance =  $2 \text{ mg} / 3 = 0.67 \text{ mg}$
4. A 20 g standard must have a tolerance less than 0.67 mg.
5. From DMS Notice M-08-02, ASTM Class 3 has a tolerance less than 0.67 mg.

Balance 100 mg x 1.0 mg Class II (NIST HB 44, Section 2.20 Table 3)

Test Load	Maintenance Tolerance ( HB 44Table 6, Page 2-38)	Standard Tolerance (1/3 Maintenance)	Standard Class (DMS Notice M-08-02)
20 mg (20% load)	1 mg	0.33 mg	5
50 mg (50% load)	1 mg	0.33 mg	5
80 mg (80% load)	1 mg	0.33 mg	5

1. Maintenance tolerance calculation 20 mg:  $20 \text{ mg} / 1 \text{ mg} = 20$  division (d)
2. From NIST HB 44 Table 6: Class II with 0 to 5000 divisions is 1 mg maintenance tolerance
3. ASTM Class needed:  $1/3$  maintenance tolerance =  $1 \text{ mg} / 3 = 0.33 \text{ mg}$
4. A 20 mg standard must have a tolerance less than 0.33 mg.
5. From DMS Notice M-08-02, ASTM Class 5 has a tolerance less than 0.33 mg

Balance 2000 g x 0.01 g Class I (NIST HB 44, Section 2.20 Table 3)

Test Load for balance	Maintenance Tolerance ( HB 44 Table 6, Page 2-38)	Standard Tolerance (1/3 Maintenance)	ASTM Standard Class (DMS Notice M-08-02)
400 g (20% load)	0.01	0.0033 g	2
1000 g (50% load)	0.02	0.0067 g	2
1500 g ( $\approx$ 80% load)	0.02	0.0067 g	2

1. Maintenance tolerance calculation 400 g:  $400 \text{ g} / 0.01 \text{ g} = 40,000$  division (d)
2. From NIST HB 44 Table 6: Class I with 0 to 50,000 divisions is 0.01 g maintenance tolerance<sup>2</sup>
3. ASTM Class needed:  $1/3$  maintenance tolerance =  $0.01 \text{ g} / 3 = 0.0033 \text{ g}$
4. A 400 g standard must have a tolerance less than 3.3 mg.
5. From table in DMS Notice M-08-02, ASTM Class 2 has a tolerance less than 3.3 mg.