



We think that we make the very best reloading equipment in the world.

If you agree, please tell your friends.

If you disagree, tell us—we want to do something about it!

For Customer Service call toll free:

1-800-533-5000

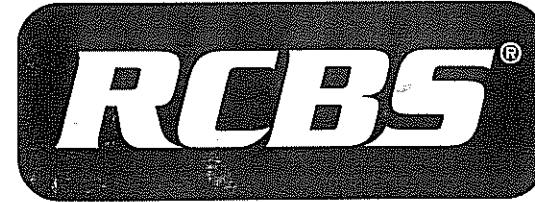
In the U.S. or Canada. Elsewhere, call 916-533-5191.

Hours: Monday - Friday 6:30am-4pm, Pacific time.

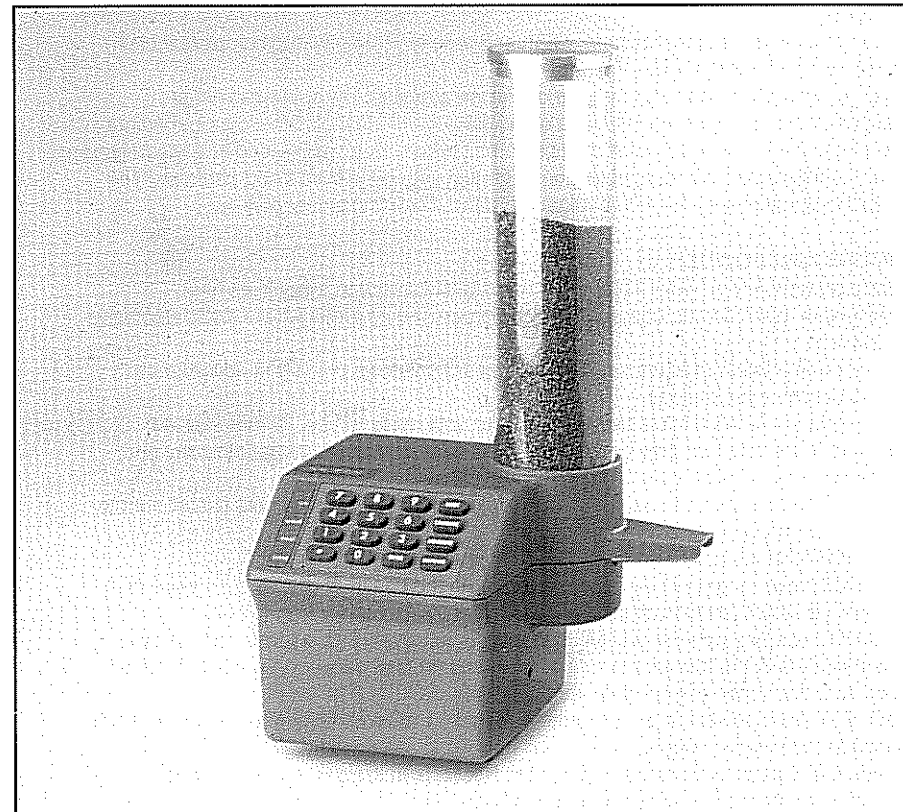
SPORTING EQUIPMENT DIVISION

RCBS Operations 605 Oro Dam Blvd. Oroville, CA 95965

Form # 200529-1201



POWDERMASTER™ ELECTRONIC POWDER DISPENSER



Safety and Operating Instructions

IMPORTANT: PLEASE READ ALL INFORMATION FIRST

Like a scale, you control the accuracy of your RCBS PowderMaster Electronic Powder Dispenser. Before using the scale, read this instruction manual carefully to fully learn how to safely operate the scale. **Failure to properly operate the scale can result in severe personal injury and/or equipment damage.** If you have read these instructions and still do not understand some operation, call us at 1-800-533-5000 and a technician will assist you. This instruction manual contains specific safety and operating information. It should be considered a permanent part of your reloading equipment and remain with the equipment at all times for easy reference.

SAFETY


Reloading is an enjoyable and rewarding hobby that can be conducted safely. However, as with any hobby, carelessness or negligence can make reloading hazardous. This product has been designed from the beginning with user's safety in mind. When reloading, safety rules must be followed. By observing these rules, the chance of a hazardous occurrence causing personal injury or property damage is minimized.

GENERAL

- Use all equipment as the manufacturer recommends. Study the instructions carefully and become thoroughly familiar with the operation of the product. If you do not have written instructions, request a copy from the equipment manufacturer.
- Don't take short cuts. Attempting to bypass established procedures is an invitation to an accident.
- Keep tools and components neat, clean and orderly. Promptly and completely clean all primer and powder spills.
- Reload only when you can give your undivided attention. Do not reload when fatigued or ill, or under the influence of medications or alcohol. Develop a reloading routine to avoid mistakes which may prove hazardous. Don't rush - load at a leisurely pace.
- Always wear adequate eye protection to protect your eyes from flying particles. You assume unnecessary risk when reloading without wearing safety glasses.

PRIMERS AND POWDER

- Store primers and powder beyond the reach of children and away from heat, dampness, open flames and electrical equipment. Avoid areas where static electricity is evident.
- Do not use primers of unknown identity. Discard unknown primers in accordance with applicable regulations.
- Keep primers in the original factory container until ready to use. Return unused primers to the same factory packaging for safety and to preserve their identity and shelf life. Primer packaging is designed to provide safe storage.
- DO NOT store primers in bulk. The blast of just a few hundred primers is sufficient to cause serious injury to anyone nearby.
- DO NOT force primers. Use care in handling primers.
- DO NOT have more than one can of powder on the bench at one time. Powder cans should be stored away from the bench to avoid picking up the wrong one.
- DO NOT use any powder unless its identity is positively known. The only positive identification is the manufacturer's label on the original canister. Discard all mixed powders and those of uncertain identity.
- DO NOT store powder in the unit after a reloading session. Over time the powder will corrode the powder hopper.
- If you use a powder measure, replace the lids on both the powder hopper and powder can after the powder hopper has been filled.
- When using a powder measure, settle the powder in the powder hopper before charging any cases. Throw and check the weight of at least ten charges. This will assure you that the correct powder charge is being thrown.

 **IMPORTANT:** The power supply for the dispenser and scale differ. Crossing the power supply cords could cause serious damage to either or both units. **PLEASE CHECK THE TRANSFORMER OF EACH DEVICE BEFORE PLUGGING IN:**

DISPENSER: 9 VOLTS DC

SCALE: 12 VOLTS AC

LOADING DATA

- DO NOT SMOKE WHILE RELOADING
- OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.
- Use only laboratory tested reloading data. We recommend the SPEER Reloading Manual.

CALIBRATION

Check calibration prior to each use of the scale and re-check frequently during use with the calibration weights provided. A spot check can easily be made during operation with an RCBS Scale Check Weight Set. If accuracy is found to be out of tolerance, the scale must be recalibrated as explained in the CALIBRATION section of the scale instruction manual. A scale with improper calibration will cause an incorrect charge weight which may exceed the maximum recommended load.

This instrument must be serviced only by a trained, qualified factory technician to insure warranty and safety. The address and phone number for repair and service is shown on the back cover. For repair information, call: 1-800-533-5000

PRECAUTIONS


Digital scales are very reliable devices. However, here are some events which may result in an inaccurate reading:

- Changes in temperature. If the temperature changes more than a few degrees, you must re-calibrate the scale. Allow scale to stabilize for 20-30 minutes prior to use.
- Changes in scale location or level working surface.
- Uncentered weights on the platen.
- Jarring of the scale during operation.
- Use only the two calibration weights supplied for accuracy.
- Weight accuracy is crucial. Keep weights clean and carefully stored. If dropped or damaged, have weights inspected against known standards. Contact RCBS Customer Service.
- Static electricity can cause the scale to "jump around". If static build-up is evident, wipe scale with an anti-static sheet, or use anti-static spray. Spray on clean soft cloth first. Do not allow spray to get into mechanism.
- If powder should get inside the unit, stop operation immediately and do not use scale until it has been serviced. Contact RCBS Customer Service.

RECORD KEEPING

- Keep complete records of reloads. Apply a descriptive label to each box showing the date produced, and the primer, powder and bullet used. Labels for this purpose are packed with SPEER bullets. Never attempt to guess at the identity of your ammunition.

NOTE: The dispenser was shipped in protective packaging. Save and use for transporting or long-term storage of the unit. This instrument may only be serviced by a certified technician. See back cover for address and Toll-Free Customer Service phone number.

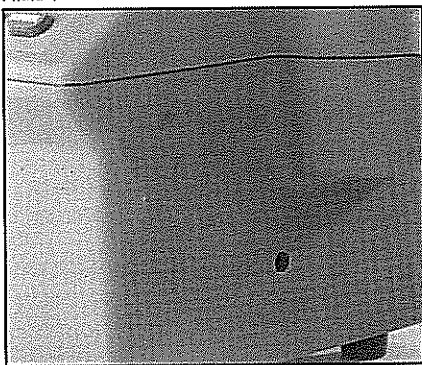
 **WARNING:** The dispenser and your scale are designed for use with **smokeless powder only. Do not use black powder** (used in muzzle loading firearms). If black powder should come in contact with an electrical spark, an explosion may occur, resulting in serious injury or death.

INTRODUCTION

Your new Powder Master Electronic Dispenser is a major advancement in reloading technology. It is not only fast and convenient, but also will dispense powder charges that are consistently accurate time after time. To obtain accurate and repeatable performance from your Powder Master it is *important that you understand and follow the instructions for both the PowderMaster Electronic Dispenser and the Powder Pro Digital Scale. They must work correctly together.*

The Powder Pro Digital Scale weighs the powder as it is dispensed by the PowderMaster and reports the weight in the pan to the PowderMaster via infrared data transmission. The infrared data port in the left side of the Powder Pro must be directed at the receiving port on the right side of the PowderMaster. See *photo 1*.

Photo 1

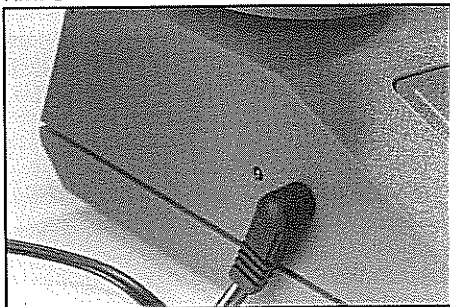


The PowderMaster uses the weight data it receives from the Powder Pro to quickly dispense powder. Initially it slows down as it approaches the correct weight and then shuts off when it reaches the programmed charge. Communication between your Powder Pro scale and PowderMaster Dispenser is always one way: The Powder Pro sends information and the PowderMaster receives information.

GETTING STARTED

If you have owned and used your Powder Pro Digital Scale for a while, you are already familiar with its operation. The first thing to do is check to confirm your scale has the necessary infrared data port. It is a small bulb located on the left side of the scale near where the power transformer plugs into the scale. See *photo 2*.

Photo 2

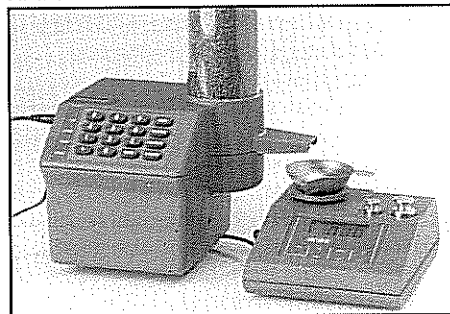


NOTE: The earliest models of the Powder Pro were manufactured without a data port. If your scale does not have an infrared port, one can be installed. Call or write RCBS Customer Service for information and cost.

If you have just purchased your Powder Pro scale, it is best to set it up and become familiar with its operation and calibration before using it for the first time with the PowderMaster Dispenser. If you have a mechanical powder trickler, we suggest you use it long enough to become comfortable with the time required for your scale to respond to trickled charges.

Once familiar with your Powder Pro, the first step in using your new dispenser is to turn on your Powder Pro scale. We suggest calibrating it at the start of each reloading session. Position your PowderMaster Dispenser to the left of your scale as shown in *photo 3*. When you plug the transformer into the dispenser, the SCALE light on the left side of the keyboard should blink on and off.

Photo 3

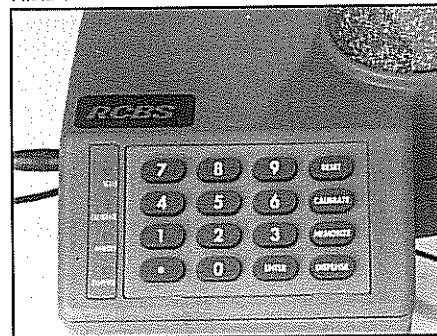


CAUTION: The power supply for the dispenser and scale differ. Crossing the power supply cords could cause serious damage to either or both units: **DISPENSER: 9 volts DC**
SCALE: 12 volts AC

POWDER PRO SCALE: Press the CAL./MENU button. The display will flash "CAL Y--N". Press the ZERO/NO button. The display will flash "PRINT Y--N". Press the ZERO/NO button. The display reads "TRIC Y--N". Press the GRAMS/YES button.

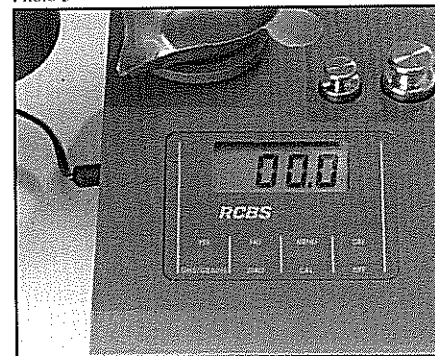
POWDERMASTER DISPENSER: The SCALE light on the left side of the DISPENSER keyboard should now stay steadily lit. If the light is still blinking, the DISPENSER is not receiving data from the scale. See *photo 4*. Check to verify that YES was entered when "TRIC" appeared on the display, and that the dispenser and scale are correctly positioned next to each other (The dispenser tubes should be directly over the scale pan). If the SCALE light is blinking, the dispenser will not work.

Photo 4



With the SCALE light on the DISPENSER steadily lit, double check to assure the scale pan is in place on the scale platen, then press the ZERO button on the scale. The scale should be in the GRAINS mode and the display should read "00.0". You are now ready to calibrate the PowderMaster Dispenser. See *Photo 5*.

Photo 5

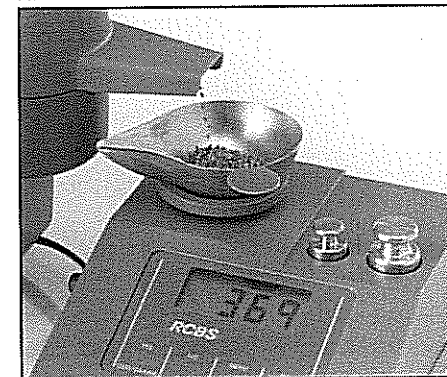


CALIBRATION

With the scale in the grains mode, zeroed with a scale pan in place and the SCALE light on the

dispenser lit, partially fill the powder hopper on the dispenser. Press the CALIBRATE button on the DISPENSER. The CALIBRATE light on the dispenser will begin to blink on and off. In a few seconds the motors in the dispenser will turn on and begin dispensing powder into the scale pan. See *Photo 6*.

Photo 6



During the calibration process the motors will turn on and off several times. They will run at high and low speeds. There will be short pauses when the motors will be off. Throughout the process, the CALIBRATE light will continue to blink on and off.

During calibration the dispenser is "learning" and memorizing the flow characteristics of the particular powder in the hopper. It uses the weight data being fed from the scale in combination with its motor speed to determine the rate of flow for the powder being used. **The dispenser must be recalibrated each time you switch powders.**

The PowderMaster will dispense approx. 150-220 grains of powder during the calibration process. When the calibration is complete the CALIBRATE light on the dispenser will stop blinking and remain lit. Return the powder in the pan to the hopper and the dispenser is now ready for use.

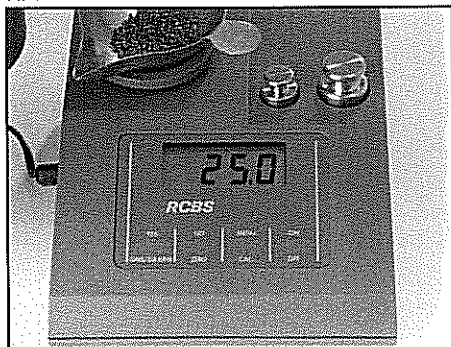
DISPENSING POWDER

The SCALE light and the CALIBRATE light on the dispenser should both be lit and not blinking. The scale should be in the GRAINS mode with the scale pan in place and the display reading "00.0". Enter the powder charge weight you want dispensed by pressing the appropriate numbers on the keypad. **ALWAYS ENTER THE COMPLETE CHARGE INCLUDING TENTHS OF A GRAIN, EVEN IF THE TENTH IS ZERO; FOR EXAMPLE "25.0".**

After keying the charge weight, press ENTER on the keypad; the MEMORY light on the dispenser will illuminate. If the light does not come on you

may not have pressed the ENTER button firmly enough or you did not enter the complete powder charge including the decimal point. With the MEMORY light lit, press the DISPENSE button. The DISPENSE light will begin to blink and within a few seconds, the dispenser motors will turn on. See photo 7.

Photo 7



Initially powder will be dispensed at a high rate then the motors will slow as the charge approaches the target weight. The last few tenths of a grain will be trickled slowly into the pan. It is normal for the dispenser to stop with one or two tenths of a grain short of the target weight showing on the scale display. In several seconds the display will change to the target weight. This is a normal rate for the scale to respond to trickling of powder. Because the dispenser is getting data directly from the scale via the infrared data port, the dispenser shuts off before the final weight is displayed. Getting the weight data at an early stage contributes to the dispenser's ability to meter out consistent and accurate powder charges. With experience, you will become accustomed to this characteristic and expect that final change on the scale display.

To continue throwing the same charge, simply replace the empty scale pan on the scale and press the DISPENSE button. If you want to change the charge weight, enter the new weight (including the decimal point and tenth of a grain), press the ENTER button and then press DISPENSE after the MEMORY light comes on.

USING THE POWDERMASTER AS A POWER TRICKLER

If you desire, the PowderMaster can be used as a power trickler. There are circumstances where this could be advantageous. For example, if you are loading large rifle cases with heavy powder charges, it might be faster to throw the major part of the charge with a mechanical powder measure such as the RCBS Uniflow Powder Measure then finish the charge on the Powder Master Dispenser.

The following procedure will be helpful:

Using your Powder Pro digital scale, adjust your Uniflow Powder Measure to throw a charge that is slightly less than the target weight, approx. 0.5-1.0 grains less than the target weight. Enter the target weight (including the decimal point and tenth of a grain) on the dispenser key pad and press the ENTER button. The MEMORY light on the dispenser should come on. Place the empty scale pan on the scale and dispense a complete charge to confirm the target weight was correctly entered. Once you have confirmed the weight, simply throw the light charge from the powder measure, place the scale pan with the light charge on the scale and press the DISPENSE button. The dispenser will trickle the additional powder needed to reach the target weight.

You can also use the dispenser to trickle powder by simply pressing and holding the DISPENSE button down without a target weight memorized in the dispenser. The dispenser will trickle slowly until you release the button.

By pressing the DISPENSE button and holding it down (after the DISPENSE light stops blinking), add more powder to the pan and bring the charge to the target weight.

TIPS, TRICKS, AND THINGS TO REMEMBER

- Always calibrate the dispenser when you change powders
- There is powder in the tubes so you can avoid spilling any by holding your fingers over the ends of the tubes when you empty the hopper back into the powder container.
- If the dispenser should dispense a charge that is slightly over the target weight, it will be faster to empty the scale pan back into the hopper and dispense another charge rather than removing a small amount of powder from the pan.
- Pressing the MEMORIZE button will cause the dispenser to memorize whatever weight is displayed on the scale. If you're working up loads and going to a higher weight, press the DISPENSE button to bump the last charge up to the new weight, then press MEMORIZE.
- As you become familiar with the operation of your new PowderMaster Dispenser, you may want to use the dispensing time constructively by seating the bullet in the case you have just charged with powder. Be aware of vibrations that may effect scale readings to the dispenser. Ideally, use the scale and dispenser on a surface not connected to your work bench.
- The PowderMaster Dispenser ranges from 1.5-99.9 grains.
- Eternal hold on your display is usually a result of power spikes or an inconsistent electricity flow. Sometimes a refrigerator or heat pump (or anything that cycles on the electric line) will cause this to happen. Of course the obvious, air movement and vibrations, should have already been checked. The scale will not stabilize unless the electricity supplied to the scale is steady.

STEP BY STEP PROCEDURE:

SCALE

1. Turn unit ON
3. Press CAL./MENU button
Reads "CAL Y--N"
4. Press ZERO/NO button
Reads "PRNT Y--N"
5. Press ZERO/NO button
Reads "TRIC Y--N"
6. Press GRAMS/YES button
8. Recalibrate Scale
GRAINS mode
Reads ZERO with pan on platen
13. Empty powder in pan
14. Scale reads 00.0
21. Pour powder into case

DISPENSER

2. Turn unit ON
(Scale light blinks)
7. SCALE light solid ON
9. Verify SCALE light solid on
10. Press CALIBRATE button
11. CALIBRATE light blinks
(Motors start and stop several times dispensing powder)
12. CALIBRATE light solid on
15. SCALE & CALIBRATE lights solid on.
16. Key powder charge in grains & tenths of grain
17. Press ENTER button
MEMORY light solid on
18. Press DISPENSE button
DISPENSE light blinks
19. Powder charge is dispensed
20. DISPENSE light goes out
22. To dispense additional powder, charges; follow the last 4 steps above