

RCBS

PARTNER™ ELECTRONIC POWDER SCALE



PRODUCT INSTRUCTIONS

IMPORTANT: PLEASE READ ALL INFORMATION FIRST

Like any scale, you control the accuracy of your RCBS Partner Electronic Scale. 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 the 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.
- 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.

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.

WARNING

This digital scale is for use with smokeless powders only. **Do not use with 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.

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 this 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, we've listed 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.
- Remove battery if scale will not be in use for several days.
- 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 the 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 scale 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.

INTRODUCTION

Your Partner™ Electronic Powder Scale is intended for use by persons familiar with proper handloading practices and their own loading equipment. If you are uncertain as to the operation of any of your equipment, contact RCBS for additional assistance. This scale provides a display that is stable, yet flexible enough to respond to subtle weight changes. We think you'll be extremely satisfied with the results.

Because RCBS has no control over the choice of components, the manner in which they are assembled, the use of this product, or the guns in which the resulting ammunition may be used, no responsibility (expressed or implied) is assumed for the use of ammunition reloaded with this product.

GENERAL INFORMATION

Carefully unpack the scale. Look for and identify the following items:

- Scale
- Two (2) calibration weights
- Powder pan

The scale was shipped in protective packaging which should be saved and used for transporting the scale. This packaging is also recommended for long-term storage of the unit.

IMPORTANT: Treat the scale like the delicate instrument that it is. The Partner™ Electronic Powder Scale is physically very fragile and the load cell can be damaged by:

- Dropping the scale.
- Pulling up on the platen in such a way that it binds in the load cell.
- A sudden, violent physical shock to the scale.

DISPLAY PANEL DESCRIPTION

The "GMS/GRAINS" button will switch the scale interchangeably from grains to grams. When the scale is in the grains mode the display reads "00.0." In the grams mode it will read "GM00.00."

Note that the "GM" will blink to alert you to the fact that you are in the grams mode. See *Photo 1* for button location and a detailed view of the display panel.

The "ZERO" button is used to re-zero the scale. For example, to weigh powder in a powder pan, first place an empty pan on the scale platen and gently push the "ZERO" button to re-zero the scale. This will automatically subtract the weight of the pan from the next weighing.



Photo 1

The "CAL" button is used to calibrate the scale. **Proper and timely calibration is absolutely essential to good scale operation.** This procedure only takes a few minutes and should be performed prior to each reloading session (at a minimum) to ensure accurate weighing. This procedure is fully described in detail in the CALIBRATION section.

The "ON/OFF" button is used for turning the display panel on and off.

NOTE: It is your responsibility to make certain that the scale display is properly set to the weight unit (either grains or grams) that you are using.

SET-UP

Your scale is powered by a 9-volt Alkaline battery. When installing the battery, make sure that the battery lead (wires) are under the battery. Do not allow the wires to get into the scale mechanism.

When removing the battery, DO NOT bang the scale against your hand to "pop" the battery out. This may damage the load cell.

When you turn the scale on it will briefly display "tEst." See *Photo 2*. The scale will then zero and the display will read "00.0" or "GM00.00." Let the scale stabilize for 20-30 minutes to recover from the trauma of shipping.



NOTE: Whenever the readings are stable the decimal point will be solid. When the readings are changing, the decimal point will blink.

When you set up your scale, remember to choose an area with a stable temperature, free from drafts. To avoid inaccurate readings, do not set the scale near open windows, air conditioning or heater vents. Make sure the area is free from vibrations and that the work surface is level.

Remember, a scale with an improper calibration will cause inaccurate charge weights which may exceed the maximum recommended listed load.

NOTE: The RF emissions from portable telephones may interfere with your scale. In nominal use your scale reading will drift slightly. This is due to temperature fluctuations or wind drafts and is normal.

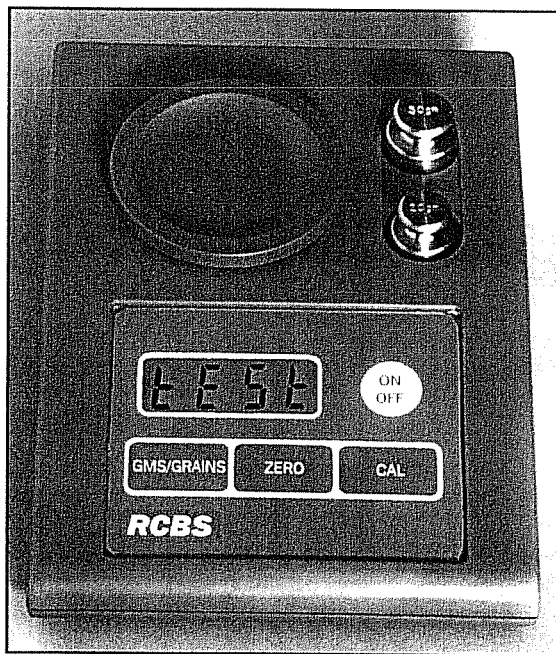


Photo 2

NOTE: Whenever the scale stabilizes within .5 grains of your zero weight it will "auto zero" itself. This function is deactivated when the scale is more than +/- .5 Grains from your last zero weight. When the scale drifts more than +/- .5 grains from zero, it will warn you by flashing alternately between "t n r E" and the weight. This tells you to move the material you are weighing, replace the empty pan if necessary and gently press the ZERO button to re-zero the scale.

IMPORTANT: As with any scale, you control the accuracy of your RCBS Scale. It is your responsibility to zero and calibrate the scale properly. You need to continually verify the accuracy of the scale with the check weights.

TO USE THE SCALE

WEIGHING: If the display panel is blank, press the ON/OFF button. This will turn the display panel on. Program the scale in Grams or Grains mode, whichever is appropriate. Place the material to be weighed on the platen and the weight will be displayed on the panel.

NOTE: The Partner™ Electronic Powder Scale is very sensitive to off-center loading. You must make sure to center the material to be weighed on the platen. We recommend you only use our special powder pan. Make sure you always center the calibration weights on the platen.

RE-ZEROING: When weighing something that must be held in a container, such as powder, zeroing enables the scale to automatically subtract the weight of the container. Only the net weight of the powder in the container will be displayed .

TO RE-ZERO: Gently press "ZERO" to obtain a zero reading. Make sure there is no weight on the platen. Place an empty powder pan on the platen. Press "ZERO" again. The display will read "00.0" and the weight of the powder pan will be stored in the scale memory. It will automatically be subtracted from the next weighing. Add the powder to the pan. As powder is added, its net weight will be displayed.

When the scale pan and its contents are removed from the platen, the weight of the scale pan will be displayed as a negative number. The scale pan weight will remain in memory and the scale will again read zero when the empty pan is replaced. This value is retained until the ZERO button is pressed again or the scale is turned off.

We recommend that you leave the empty scale pan on the scale. When you want to weigh a charge, put the powder in the pan, read the weight, dump the powder and return the empty pan to the scale. This will allow the scale to Re-Zero itself for each weighing.

NOTE: When the battery runs low (below 7.8 volts) the scale becomes very inaccurate at higher weights, requiring frequent re-calibration. Time for a new battery.

CALIBRATION

The scale has been calibrated before shipment. However, it should be checked before use and re-calibrated if necessary. The purpose of calibration is to let the computer in the scale learn what signal from the load cell is associated with what specific weight. Before calibration, make sure that the work surface is stable, vibration free and away from fans or vents.

To calibrate your scale, first ensure that you have a stable zero. Your scale display should read "00.0" with the decimal point solid, not blinking. Make sure that you do not have any weight on the scale platen. See Photo 3. Press the CAL button. The scale will read --0-. See Photo 4. The scale is requesting "zero" weight. Push CAL again. Now the scale will read "HOLD" for a few seconds and then display -20-. Place the 20 gram check weight in the center of the platen. See Photo 5. Press CAL and the scale will read "HOLD" again and then display -30-.

Remove the 20 gram weight and replace it with the 30 gram weight. See Photo 6. Press CAL. After displaying "HOLD" the scale will ask you for 50 grams. Add the 20 gram weight to the top of 30 gram weight already on the platen.

NOTE: At this point BOTH weights must be on the platen. See Photo 7. Press CAL. After displaying "HOLD", the scale will request --0- again. See Photo 8. Remove both check weights and press CAL for the last time. The scale will read zero.

NOTE: If your 20 Gram check weight reads 19.99 or 20.01, re-calibration is not necessary for a +/- .1 grain range.

NOTE: Do not try to trickle powder in from zero weight. The Auto Zero will try to eliminate the first .5 grain causing the scale to read incorrectly. You must have at least .5 grains displayed on the scale before trickling to disable the Auto Zero.

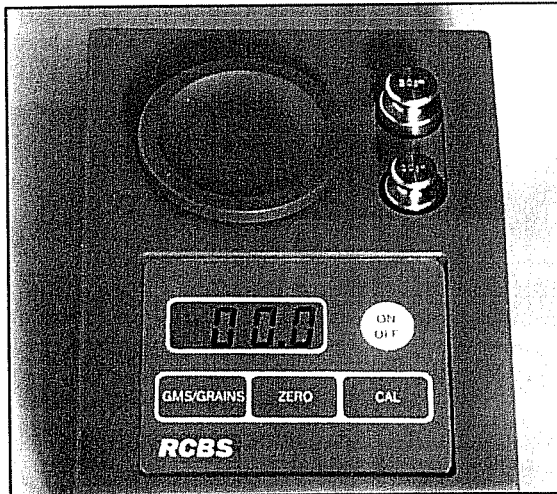


Photo 3

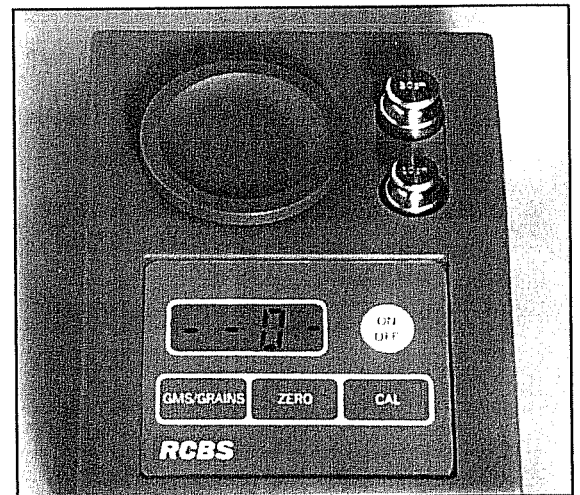


Photo 4



Photo 5

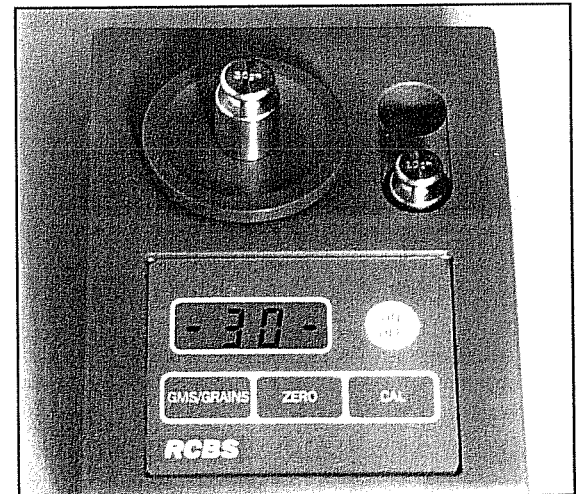


Photo 6

LOW RANGE CALIBRATION: Since most handloaders are weighing powder charges of less than 20 grams (308.6 grains), we have provided a calibration technique suitable for low-range weighing. When the scale asks for -30-, remove the 20 gram weight and press "GMS/GRAINS." The scale will return to "00.0," ready for operation without setting the 30 and 50 gram points. **WARNING:** When using the low range calibration, the total weight to be measured (Powder pan plus the charge) must not exceed 20 grams (308.6 grains). If it does exceed 20 grams, repeat the full calibration procedure as described above. (The low range method is preferred to save time).

REMEMBER: Remove powder pan from platen before calibrating. Also, calibration weights are in GRAMS, NOT GRAINS.

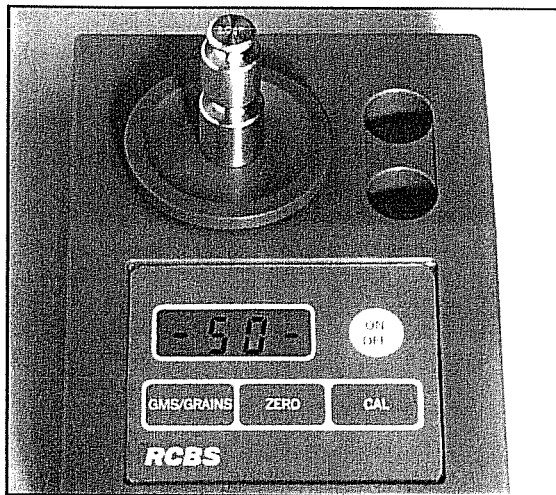


Photo 7

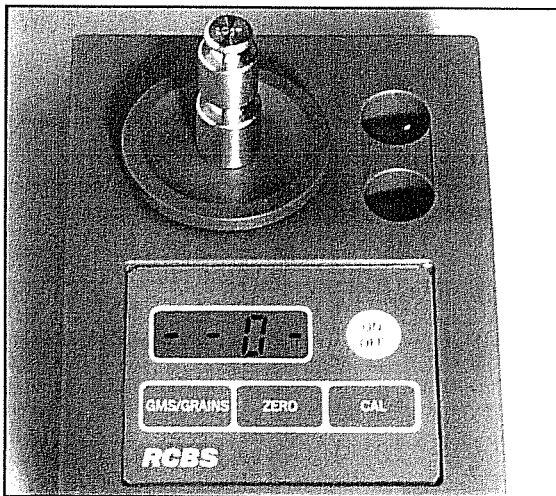


Photo 8

SCALE ACCURACY AND READINGS

The Partner™ Electronic Scale is accurate to +/- .1 grain up to 300 grains and +/- .2 grains to 750 grains (provided the scale has warmed up and achieved a stable temperature and accurate calibration).

ERROR MESSAGES

The computer in your Partner™ Electronic Scale can detect three different conditions:

- **Err 1:** This will appear during calibration if you get the check weights reversed, calibrate the scale with the powder pan on the scale platen, or use weights other than the two standards provided. Err 1 will also appear when the battery voltage drops below 7.8 volts. If the correct weights are being used, try a fresh 9-volt alkaline battery. If you get this message with the correct check weight in place, please contact RCBS for further information.

- **Err 2:** This indicates that you have exceeded the total capacity of the scale. The capacity is 750 grains or 50 grams. Err 2 also indicates permanent damage to the cell or scale.

- **FAIL:** This appears when the computer senses a zero or negative output from the load cell. It may appear momentarily if the scale is bumped hard (try to avoid). If the "Fail" message is continuous, this indicates that the load cell is damaged. Please contact RCBS for repair information.

CARE AND MAINTENANCE

Use a soft damp cloth to keep the scale housing and platen clean and free from foreign material. Keep the check weights used for calibration in a safe dry place. Storage "wells" for storing these weights are provided in the scale housing.

PRODUCT SERVICE AND WARRANTY INFORMATION

Your RCBS Partner™ Electronic Scale is manufactured for RCBS by PACT and is backed by a limited lifetime warranty. This scale is physically very fragile; Specifically the load cell, which provides load sensing. It can be damaged by dropping the scale, pulling up on the platen & causing it to bind in the load cell, sudden violent physical shock to the unit, or shipping the scale without adequate packaging. Because of this, **the load cell is not covered by warranty.** In the unlikely event that your scale requires service, please call RCBS for shipping instructions (800-533-5000). PLEASE DO NOT SHIP THE SCALE TO RCBS. We recommend that you keep the original box and foam packaging.

Enjoy your new Partner™ Electronic Powder Scale and remember: Take care of the scale and it will provide years of trouble-free operation.



RCBS

PRECISIONEERED™ RELOADING EQUIPMENT

*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!*

CUSTOMER SERVICE

1-800-533-5000 (US or Canada) or 530-533-5191

Monday - Friday 6:30am - 4pm PST

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