

ChargeMaster 1500 Scale & ChargeMaster Dispenser Instruction Manual





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 Hours: Monday – Thursday, 6:30am – 3:00pm Pacific Time e-mail: rcbs.tech@atk.com Web site: http://www.rcbs.com RCBS • 605 Oro Dam Blvd. • Oroville, CA 95965

## IMPORTANT SAFETY INFORMATION

### IMPORTANT: PLEASE READ ALL INFORMATION FIRST

Like any scale, you control the accuracy of your RCBS ChargeMaster 1500 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.

# A 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.
- Do not 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.

### 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.

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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. For repair information, call: 1-800-533-5000

## A PRECAUTIONS

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

- Change in temperature. If the temperature changes more than a few degrees, you must recalibrate the scale. Allow scale to stabilize for 20-30 minutes prior to use.
- Changes in scale location or an un-level working surface.
- Un-centered 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.
- Do not press on the platform with your hand. You can damage the load cell.

## **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 longterm 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.

### CHARGEMASTER 1500 SCALE INSTRUCTIONS:

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## GENERAL INFORMATION

The scale should be stored and used at normal room temperature. It should never be stored in cold or freezing temperatures, which can damage the load cell. If the scale has been sitting at a cool temperature, remove it from the carton and allow it to sit at room temperature for about 20 to 30 minutes before usina.

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

- Scale with Platen
- AC Power Adaptor
- Two 50 gram weights
- Powder pan
- Instruction Manual

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.

### POWER SUPPLY (ADAPTOR):

(1) Input : 120 VAC 60 Hz Output: 9V DC 1 A (2) Input : 230 VAC 50 Hz Output: 9V DC 1 A

Power Consumption: Average current consumption: 33 mA

Power consumption of dispenser: Scale → 33 mÅ Scale + Dispenser  $\rightarrow$  36 mA Scale + Dispenser + motor  $\rightarrow$  220 mA (Max)

#### SPECIFICATION:

1500.0 grains / 0.1 grains 100.00 grams / 0.01 grams

#### IMPORTANT:

Treat the scale as you would any fine instrument. The ChargeMaster 1500 is physically very fragile and the load cell can be damaged by the following:

- Pushing down or 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.

#### SCALE- KEYPAD FUNCTION DESCRIPTION T

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Stable Over	Under	Mem	Disp Link
GN/GMS	ZERO	CAL	ON/OFF

•

Stable: When black arrow points to stable the weight is stable The remaining indicators are for use with the

ChargeMaster Dispenser

- GN/GMS: Key switches scale from GN (grains) to GMS (grams). The default is GN.
- ZERO: Key is used to re-zero the scale. For example, to weigh powder in a powder pan, you would first place an empty pan on the scale platen and push the ZERO key to re-zero the scale. This will automatically subtract the weight of the pan from the scale.
- CAL: Key is used to calibrate the scale. You should calibrate your scale each time you begin a new reloading session. See the calibration section for full details. (Note: it is important to make certain the scale display is properly set to the weight unit (either grains or grams) that you are using.
- ON/OFF: Key is to power the scale on and off. When you turn the scale on the display will first show 9999999 and will go through a quick count down and will then display to 0.0 GN (grain mode). The arrow will be pointing to "stable" when ready to use. When the scale is not in use the scale should be turned off and unplugged.

#### CALIBRATION

Always calibrate your scale before use. This must be done WITHOUT the powder pan on the platform. To calibrate the scale, follow the steps below:

Step 1.Be sure the powder pan has been removed from the scale platen and then press the ON key. When you turn the scale on, the display will show 9999999 across the display for a few seconds and then counts down to display 0.0 GN (grains mode). The arrow will be

pointing to "stable" when ready to proceed with calibrating. SEE PICTURE #1.

- Step 2.Next press the CAL key on the scale. The display will show C 0, with a lower case g in the upper right hand corner of the display. SEE PICTURE #2.
- Step 3. When the display shows C 0 press the CAL key again.
- Step 4. When the display shows C 50, place a 50 gram weight on the platen and press the CAL key. SEE PICTURE #3
- Step 5. When the display shows C 100, add the second 50 gram weight to the platen and press the CAL key. SEE PICTURE #4.
- Step 6.Now the display will show 100.00 g, SEE PICTURE #5. Remove both weights from the platen, and replace them to their weight holders. The display will automatically switch to 0.0 GN (grains) and the scale will sound a beep.
- Step 7.Next place the powder pan on the platen and press the ZERO key to zero the weight of the pan. The display will show 0.0 GN and is now calibrated and ready to operate. SEE PICTURE #6. Notice: In the calibration process. when it shows ERROR, it is probably caused by the incorrect weight. Please use the weights we provided.













2 ChargeMaster 1500

-4-

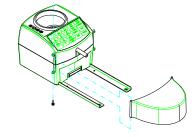
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#### CHARGEMASTER DISPENSER INSTRUCTIONS

Your new ChargeMaster Dispenser is an exciting advancement in reloading technology. It is not only fast and convenient, but can store up to 30 of your favorite loads. Once you program the unit, you can recall the stored charge and dispense it with precision and accuracy. The ChargeMaster is fast and repeats with the accuracy you've come to expect from RCBS.

#### Getting Started:

The ChargeMaster Dispenser is used in conjunction with the ChargeMaster 1500 Scale. The ChargeMaster scale simply plugs into the dispenser. The transformer on the ChargeMaster scale supplies the power for the ChargeMaster Dispenser. If you purchase your ChargeMaster as a Combo Unit, the Scale & Dispenser are preassembled into a single unit. The two units are solidly mounted into one unit using two rigid steel brackets on the underside of the Dispenser and Scale. If you purchased your ChargeMaster Scale and ChargeMaster Dispenser separately, you will need to assemble the two units.



- Step 1. To attach the scale to the dispenser, remove the 4 screws on the bottom of the scale and slide the scale along the rails until the two units are plugged in together. Replace the screws and hand tighten. DO NOT OVER TIGHTEN.
- Step 2.The ChargeMaster dispenser comes equipped with a wind guard. This allows you to load in conditions that most scales will not handle.
- Step 3. The knob on the side of the dispenser is the drain. To open the drain turn knob ½ turn, twist it to remove the powder left in the dispenser. It is not a good idea to allow the powder to remain in the hopper for long periods of time.

#### DISPENSER - KEYPAD FUNCTION DESCRIPTION

1	2	3	EDIT	BACK
	ABC	DEF	MEM	SPACE
4	5	6	NEW	
GHI	JKL	MNO	MEM	
7 PQRS	8 TUV	9 WXYZ	RECALL	DISP
	0	CANCEL STOP	MEM	ENTER

**BACK SPACE:** Deletes the last digit displayed on the far right side of the LCD Display window. Each time you push this key it deletes one more digit.

**TRICKLE 4**: Manual operation to dispense the powder or scroll through load data in memory

- **DISP:** Press key to dispense the powder once you have entered a given charge **ENTER:** Confirm your charge
- EDIT MEM: Edit the LOAD DATA MEMORY data
- NEW MEM 1: Sets the new memory data or scrolls through load data in memory.
  RECALL: Recalls the LOAD DATA MEMORY
- MEM: This recalls the LOAD DATA MEMORY data by memory number, 01 through 30. Press until you get to the charge you want to dispense or enter.
- CANCEL/STOP: Clears the data or stop the operation

## SCALE - DISPLAY PANEL DESCRIPTION

Stable Over Under Mem Disp Link

## Stable: The black arrow indicates the weight is stable

Over: The black arrow indicates the powder weight in the pan is higher than the set value Under: The black arrow indicates the powder weight in the pan is lower than the set value Mem: The black arrow indicates the desired weight as set in the LOAD DATA MEMORY Disp: The black arrow indicates powder is being dispensed from the Dispenser to the Scale

Link: The black arrow indicates that the dispenser and scale communication link is established

## LOAD DATA MEMORY CONFIGURATION:

Each memory has four items of data: C=\_ (Cartridge), this is the name or number of the cartridge

B\_ (Bullet weight), this is the weight of the bullet used.

P=\_(Powder type), this is for the name or number of the powder

W\_(Weight of powder), the charge is entered here

#### CONFIGURE NEW LOAD DATA MEMORY (30 memory stores available) To exit dispenser and revert back to scale mode press ZERO Key on your scale.

- Step 1.Press the <u>NEW MEM</u> key to start the process
- Step 2. The first time you program MEM=0 will show on the display. (MEM=01, 02, 03 and so on through MEM=30 will appear on the screen as each MEM field is used).

Step 3.Press the ENTER key, the display will flash "CART" and then show C=. Key in the cartridge one number/letter at a time. To select a letter continue to push the appropriate key until the desired letter appears. After you select the appropriate number/letter, you will need to wait until the keys stop flashing to proceed to the next number/letter. There are 5 spaces available to enter the cartridge name. When you've selected the cartridge name press ENTER.

- Step 4. The display will flash "B\_WT" and shows "B\_". Key in your bullet weight and press ENTER.
- Step 5.The display will flash "POWD" and shows P=. Key in the powder name. Remember that you'll need to scroll through the keys until you get to the letter you want. Allow

the letter/number to stop blinking before you proceed to the next letter/number. You have 5 spaces to enter your powder name. When you have your powder name on the display, press ENTER.

- Step 6."WT" will flash and then the display will show "W\_". Key in the powder charge and press ENTER.
- Step 7. The configuration of this memory is now complete.
- Step 8.After you have finished the current memory, the display will be ready for the next memory number to be stored. You may repeat the above steps until you have entered all your information up to 30 selections.
  - Note 1: Press the CANCEL key to delete the data in a field. Press the BACK SPACE key to clear the previous digit.

Note 2: Press the ZERO key on your scale at any time to exit the data edit process.

## RECALL THE LOAD DATA MEMORY:

- Step 1. Press the <u>RECALL</u> key, the display will show "C=\_\_\_\_"
- Step 2. Press the RECALL key again, the display shows the first memory setting.
- Step 3. Use the <u>NEW MEM</u> or <u>TRICKLE</u> keys to scroll through the stored memory. When the display shows the memory that your are looking for, press the ENTER key.
- Step 4. After you have selected it, press the DISP key, and the powder feed tube will start to dispense the powder.

### QUICK DRAIN FEATURE:

To quickly drain the remaining powder from your dispenser.

- Step 1. Place a tray under the drain spout on the right hand side of your dispenser.
- Step 2. Turn the drain spout ½ turn to open the spout. You may need to tap on the top of the dispenser to start the powder to drain.
- Step 3. To drain the powder in your dispenser tube push the dispense button and the powder will dispense into the powder pan.
- Step 4. Use the small brush provided to clean all of the powder revisor.
- Step 5. When finished be sure to close the drain spout.



Drain spout on the right hand side of your dispenser



Turn the drain spout  $\frac{1}{2}$  turn to open the spout

## RECALL THE LOAD DATA MEMORY WITH CARTRIDGE NAME:

- Step 6. Press the <u>RECALL</u> key, the display will show "C=\_ "
- Step 7. Key in the cartridge name. (e.g., 7 Mag). You may use the NEW MEM (up arrow) or TRICKLE (down arrow) to scroll through the stored cartridges. Step 8. To select the cartridge press ENTER
- Step 9. Make sure that the data stored is for this cartridge. If it is correct, then press the DISP key to start dispensing the powder. Note: If the cartridge names are repeated.

this function will automatically recall the cartridge name that is first in the memory.

## RECALL THE AMMUNITION WITH THE MEMORY NUMBER:

- Step 1. Press the RECALL key, and the display will read "C=\_ "
- Step 2. Press the MEM key.
- Step 3. Key in the memory number required (e.g., MEM=12)
- Step 4. Press the <u>ENTER</u> key, and the display shows the memory data in a loop. Note: Press ENTER key to repeat data loop.
- Step 5. Make sure that the data stored is what you require, and press the DISP key to dispense the powder.
- Note: If the wrong memory number is selected, use the <u>MEM</u> key to enter the correct number required.

#### EDIT THE LOAD DATA MEMORY DATA:

- Step 1. Use the steps on RECALL THE LOAD DATA MEMORY to select the memory setting you'd like to modify. You can recall the setting you'd like to modify 3 different ways.
  - a. 1: Use the Recall key to recall the memory settingb. 2: Key in the cartridge name
  - c. 3: Key in the memory number
- Step 2. Press the EDIT MEM key to re-edit the data.
- Step 3. Press the ENTER key to display the data in a loop. (Cartridge name=>Bullet weight=>Powder name=>Weight)

#### Note: Press the CANCEL key to delete the data. Press the BACK SPACE key to clear the previous digit.

Step 4. After editing the new data, press the ENTER key to step on to the next memory location.

#### CLEAR THE LOAD DATA MEMORY:

- Step 1.
   Use the steps on RECALL LOAD

   DATA MEMORY to select the
   memory to be deleted. There are 3

   ways to select the data from
   memory

   1: Use the Recall key to recall
   the memory setting

   2: Key in the cartridge name
   3: Key in the memory number

   Step 2.
   Hold the CANCEL key for 2 seconds
- to clear the data. Then the display will show the next memory setting. **Note:** When the memory is cleared, the store remains empty until new data is entered.

## DISPENSING MODE:

- Step 1. There are two ways to set the dispensed weight value:
- Step 2. Use the number keys on the dispenser to key in the desired weight, and press the ENTER key to confirm the charge. The decimal point must be used to enter charges using tenth grain increments. (e.g. 45.5) Use the CANCEL key or BACK SPACE key to modify the charge.
- Step 3. You can use the RECALL Button to pull up charges that you've put into the LOAD DATA MEMORY.
- Step 4. Press the DISP key to start the dispensing process.
- Step 5. After the dispenser has finished dispensing the charge, press the DISP key again to dispense the same weight again. Continue this process as long as you do not want to change the powder charge.
- Step 6. If you need to change the weight, key in the new weight as in Step #1 and press DISP.
- Step 7. If you are dispensing powder and wish to exit dispensing mode, press the CANCEL key. Press the ZERO key to go back to Scale mode.
- Step 8. To change the dispensed weight value in dispensing mode, the TRICKLE key

may be used to fine-tune the exact value and press <u>MEM</u> key to memorize the new dispensing weight. For example, 10.0GN is the first dispensing weight, press <u>DISP</u> key to start the dispensing process. After the dispensing process, press <u>TRICKLE</u> key to keep dispensing till 12.5GN. Then press <u>MEM</u> key to memorize the last dispensing weight – 12.5GN. Note: This feature can be used in working up new charge loads.

## MANUALLY DISPENSING OPERATION WITH TRICKLE KEY:

Press the TRICKLE key to dispense the powder slowly. Release TRICKLE key to stop dispensing.

#### DISABLE/ENABLE AUDIBLE TONE(BEEPS):

Press and hold the ZERO key until the display shows "BEEP OF". The tones are now turned off. Press and hold the ZERO key until the display shows "BEEP ON" to turn tones back on.

#### AUTOMATIC DISPENSE MODE:

The improved ChargeMaster combo has been outfitted with an Auto-Dispense feature. This allows powder charges to automatically dispense from the unit once an empty scale pan is placed onto the unit.

- Step 1. Press and hold the ENTER key on the Dispenser until the display shows "AUTO"
- Step 2. Enter the desired charge and press ENTER
- Step 3. Press DISP to dispense the first charge
- Step 4. Return the empty scale pan onto the scale platen. When the display shows "00.0" the Dispenser will automatically dispense the charge.
- Step 5. To return to the normal operating mode. Press and hold the ENTER key on the Dispenser until the display shows "MANUAL"

## LIMITED WARRANTY

Congratulations on the purchase of your new RCBS Electronic Powder Handling Equipment. Your new Electronic Equipment is warranted to be free from defects in material or workmanship for a period of one (1) year from the date of purchase. This warranty is extended only to the original consumer purchaser. Should you believe that your Electronic Equipment is defective in material or workmanship, you must return it to Ammunition Accessories Inc. through its RCBS Operation, postage paid for evaluation. If defective, the product will be repaired or replaced at RCBS Operation option, at no charge. Send a check in the amount of ten dollars, U.S. payable to RCBS Operation for return shipping and handling, along with the Unit to:

RCBS Operation, 605 Oro Dam Blvd., Oroville CA. 95965.

Please complete the attached warranty registration card and mail this card to us at the above address within 30 days of purchase. Failure to send this card will not adversely affect your warranty rights if you can otherwise show in a reasonable way the date the product was purchased ( e.g. your dated purchase receipt). But sending this card is one convenient way to establish on our files the date of purchase and will provide us with marketing information which should allow us to better meet your needs in the future.

THIS WARRANTY DOES NOT COVER DEFECTS OR DAMAGE RESULTING FROM: CARELESSNESS, MISUSE, IMPROPER INSTALLATION, MODIFICATION, OR IF YOUR SCALE HAS BEEN ALTERED OR REPAIRED BY ANYONE OTHER THAT FACTORY PERSONNEL.

WARRANTY SERVICES CANNOT BE PROVIDED WITHOUT MEETING THE ABOVE REQUIREMENTS. Please retain this warranty certificate for future reference.

THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. RCBS OPERATION IS NOT LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT AND UNDER NO CIRCUMSTANCES SHALL RCBS OPERATIONS BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. HOWEVER, SOME STATES DO NOT ALLOW LIMITATIONS ON INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. The above warranty provides the sole and exclusive warranty available to the customer in the event of a defect in material or workmanship in the Scale. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

RCBS Operation, 605 Oro Dam Blvd., Oroville, CA. 95965 Customer Service Phone Number: 1 (800) 533 5000, Fax Number: (530) 533 1647 Email Address: rcbs.tech@atk.com

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Mail to:	RCBS Operation 605 Oro Dam Blvd. Oroville, CA 95965		
1.	Where Purchased		
2.	Name: Mr/Ms		
3.	Street Address		
4.	Product Purchased:		
5.	Date Purchased:		
Choose:	ChargeMaster Dispenser		
	ChargeMaster Scale		
	RangeMaster Scale		
Copy of	Register Receipt Enclosed		