



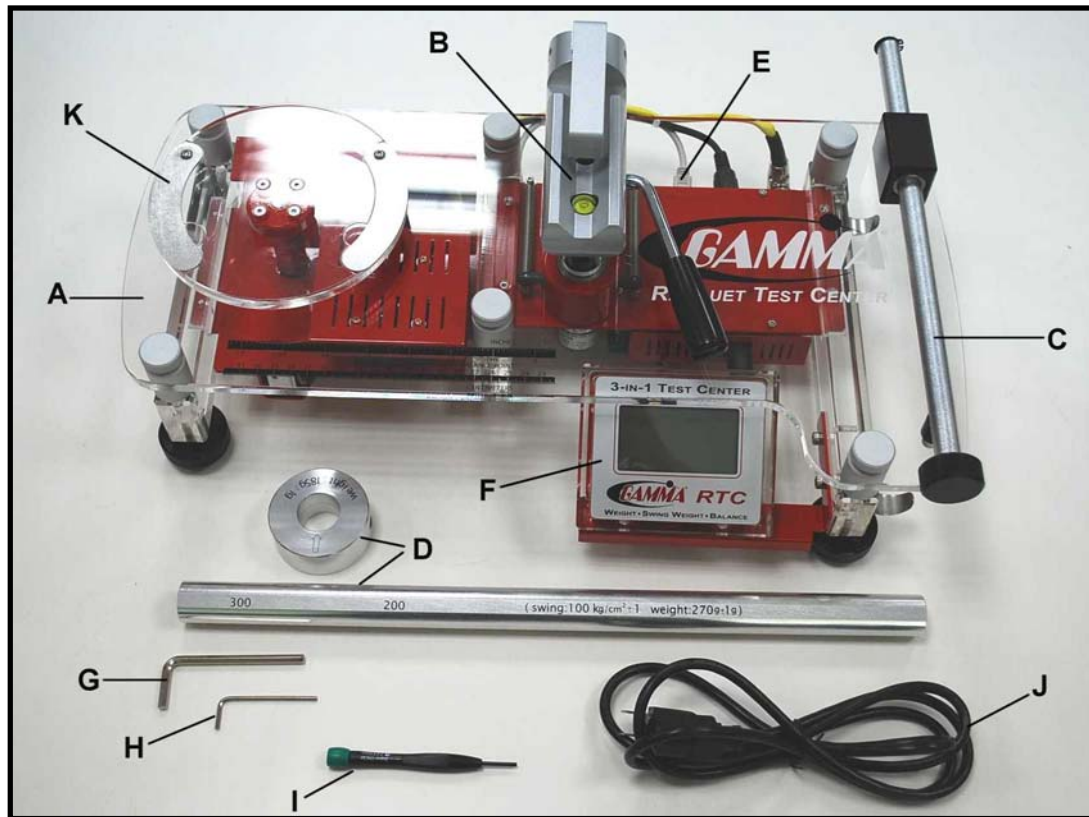
3-IN-1 RACQUET TEST CENTER
WEIGHT • SWING WEIGHT • BALANCE

OWNER'S MANUAL

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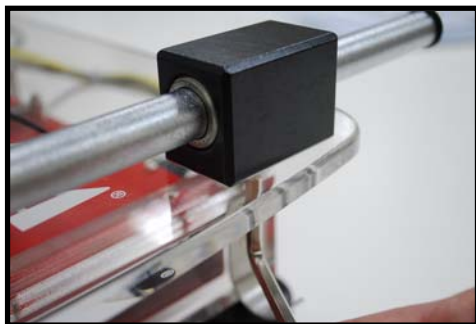
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PARTS LIST -

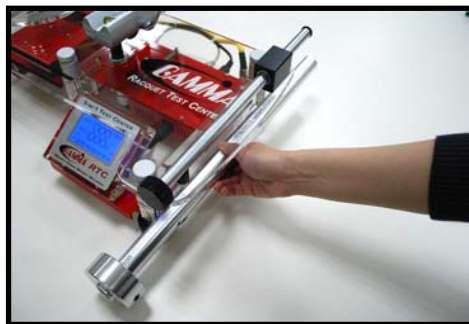


- A. 3 in 1 Machine Table
- B. Racquet Clamp for Swing Weight Test
- C. Balance Bar
- D. Calibration Weight & Bar
- E. LCD Cable
- F. LCD Screen
- G. 5 mm L-shaped Hex Wrench
- H. 3 mm L-shaped Hex Wrench
- I. Micro Screw Driver for Calibration
- J. Power Supply Cord
- K. Weight Scale Platform

ASSEMBLY INSTRUCTIONS –

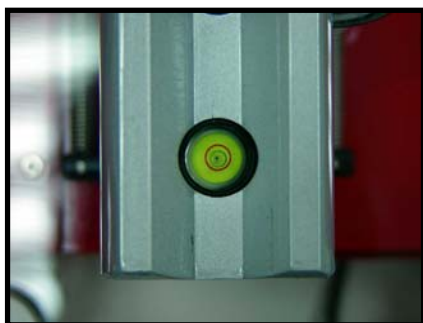


A.



B.

- A. Attach the balance beam to the machine table using the 5 mm L-shaped hex wrench.
 B. Slide the weight onto the end of the calibration bar and place it in the hooks on the right side of the machine



C.



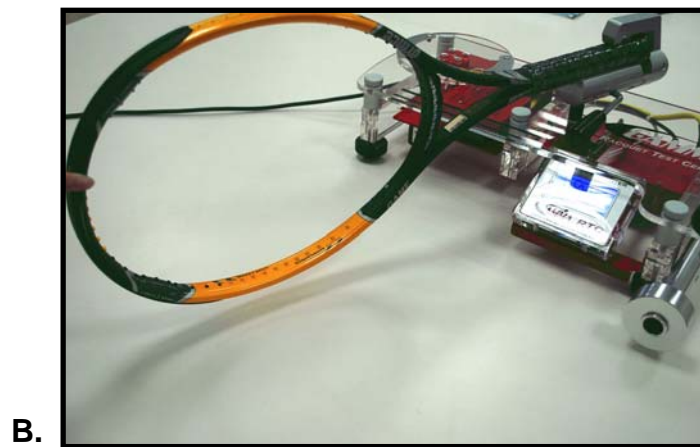
D.



E.

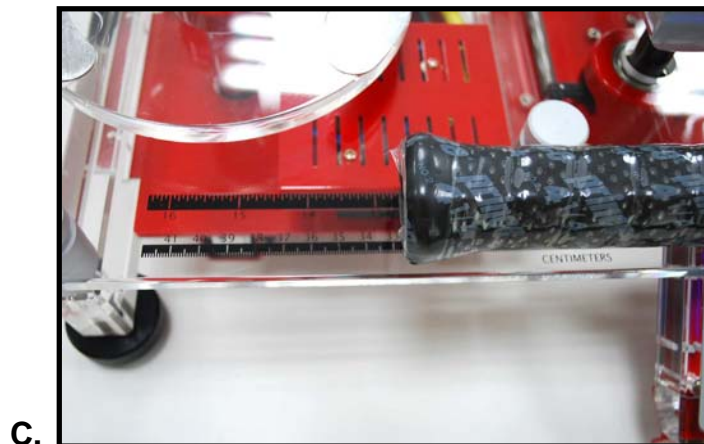
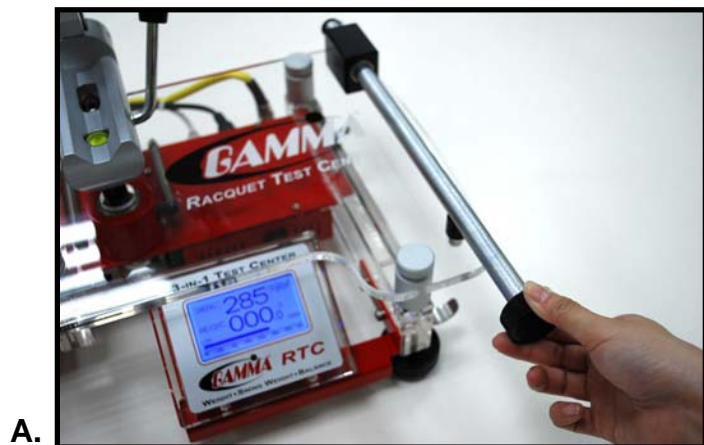
- C. Check the bull's eye level located in the racquet clamp and adjust the footpads until the bubble is centered in the sight glass.
 D. Turn the footpads clockwise to lower the level of the base and counter clockwise to raise the level of the base.
 E. Make sure the voltage switch is set to the correct setting and connect the power cord to the power outlet. After switching the machine on, wait for 3 "beeps" and then the machine will be ready to use.

SWING WEIGHT TEST -



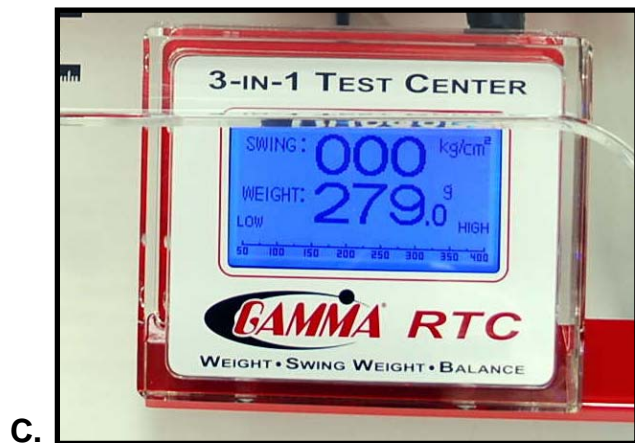
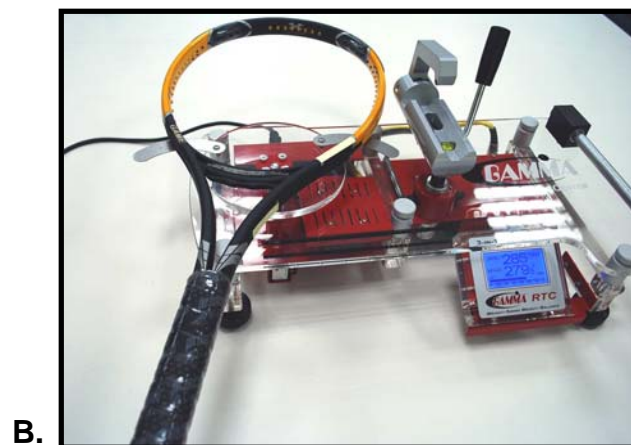
- A. Place the racquet handle into the racquet clamp and with the butt cap resting against the backside of the clamp and pull the lever down to lock the racquet in place.
- B. Rotate the racquet to the left until it stops and wait for the “beep”. Release the racquet and let it swing freely.
- C. The test is completed after the 2nd “beep” and the results will be displayed on the LCD screen.

RACQUET BALANCE TEST –



- A. Fully extend the balance beam by sliding it out of its holder.
- B. Place the racquet on the balance beam and rotate the beam to slide the racquet to the right side of the table. (Note: The grip may tend to stick to the table and cause the racquet to slip on the balance beam as the beam is turned. If this occurs, it is best to place the racquet on the balance beam close to its balance point from the start.)
- C. Observe the end of the racquet as it slides over the table and read the balance point off the scale where the butt end of the racquet lifts off the table.

RACQUET WEIGHT TEST –



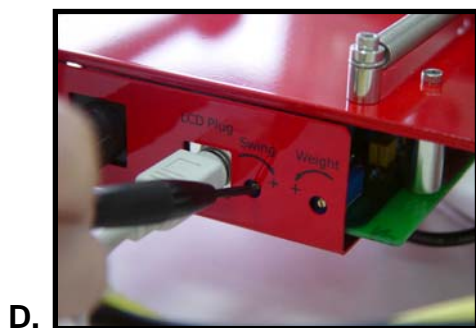
- A. Extend the two racquet support arms on the Weight Scale platform.
- B. Place the racquet on the Weight Scale platform.
- C. The racquet weight will be displayed on the LCD screen.

SWING WEIGHT CALIBRATION –

It is important to periodically check the accuracy of the Swing Weight measurement of the GAMMA RTC from time to time and make calibration adjustments when needed. The RTC includes a Calibration Bar and Calibration Weight for this purpose.



The Swing Weight can be checked at: (A) - 100 kg/cm² with the Calibration Bar alone, (B) - 200 kg/cm² with the Calibration Weight locked on the bar at the “200” mark, and (C) - 300 kg/cm² with the Calibration Weight locked on the bar at the “300” mark. When placing the Calibration Bar into the Racquet Clamp, the flat edge on the bar should be facing up and the end of the Calibration Bar should rest against the backside of the Racquet Clamp. Measurement accuracy is +/- 2 kg/cm².



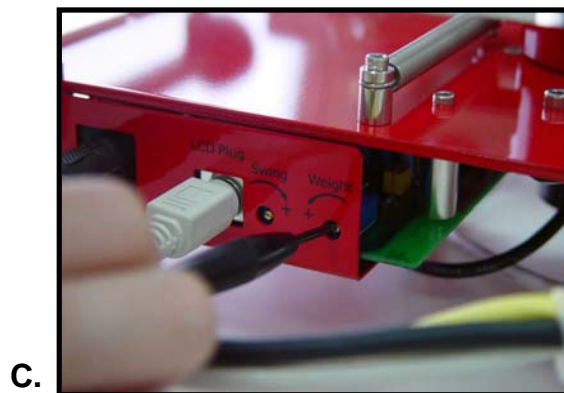
If the swing weight displayed on the LCD screen does not match the value of the Calibration Bar within +/- 2 kg/cm², adjust the display to match the value stated on the Calibration Bar by turning the adjustment screw labeled “Swing” located on the back side of the PCB using the micro screw driver provided with the RTC as pictured in Step (D).

WEIGHT SCALE CALIBRATION –

It is important to periodically check the accuracy of the Weight Scale measurement of the GAMMA RTC from time to time and make calibration adjustments when needed. The RTC includes a Calibration Bar and Calibration Weight for this purpose.

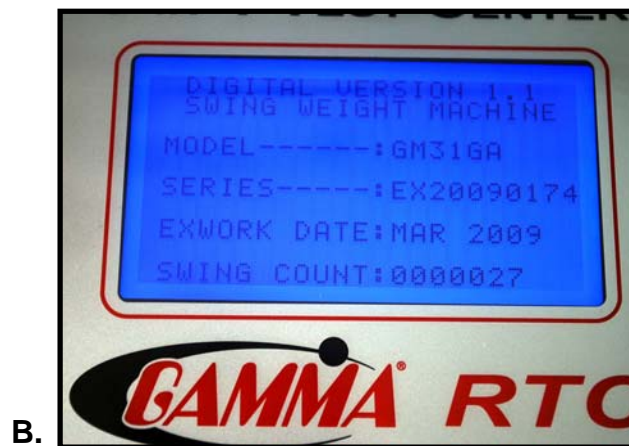


The Weight Scale can be checked at: (A) - 185 grams using the Calibration Weight alone and (B) - 270 grams using the Calibration Bar alone. Measurement accuracy is +/- 1 gram.



If the weight displayed on the LCD screen does not match the value of the Calibration Weight or Calibration Bar within 1 gram, adjust the display to match the value of the Calibration Weight or Calibration Bar by turning the adjustment screw labeled "Weight" located on the back side of the PCB using the micro screw driver provided with the RTC as pictured in Step (C).

MACHINE DATA –



- A. To check the Model Number, Series Number, and Production Date of the machine, rotate the Racquet Clamp to the right and hold it for 3 seconds until you hear the “beep”.
- B. The LCD screen will list the Model Number, Series Number, and Production Date, along with the number of Swing Weight tests performed on the machine.

To return the LCD to the main display rotate the Racquet Clamp to the right and hold it for 3 seconds until you hear the “beep”.

TROUBLESHOOTING (SWING WEIGHT) –

When performing the Swing Weight Test, it is very important that the end of the racquet or Calibration Bar be positioned against the backside of the Racquet Clamp as illustrated in Figure 1 below.

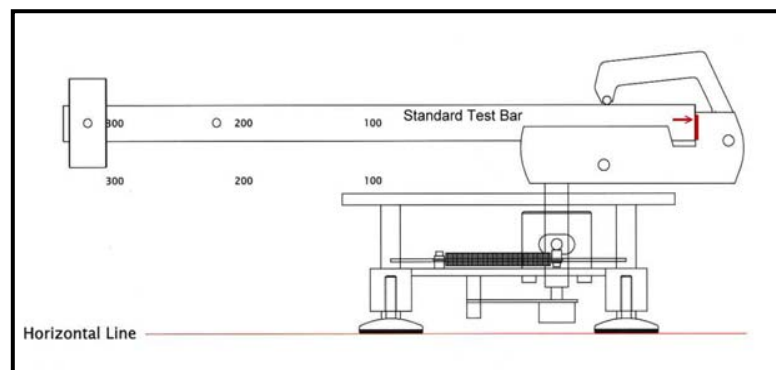


Figure 1

It is equally important that the machine table be level. If the table is tilted up at the front (Figure 2) the Swing Weight measurement will be higher than the standard. If it is tilted down (Figure 3) the Swing Weight measurement will be less than the standard.

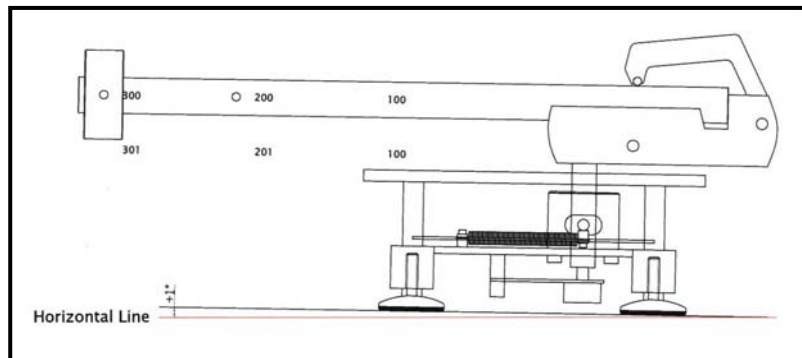


Figure 2

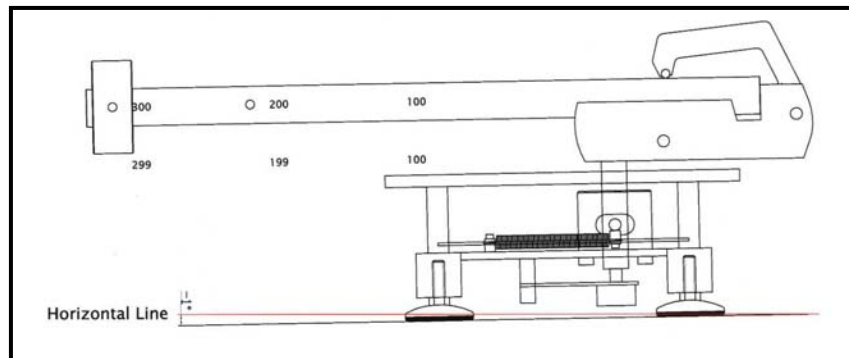


Figure 3

LIMITED WARRANTY –

GAMMA SPORTS warrants to the original purchaser that the GAMMA 3-in-1 RTC ("EQUIPMENT") purchased is free from defects in materials and workmanship for a period of five (5) years from the date of original purchase excluding electrical parts and the racquet clamp, and for a period of one (1) year from the date of original purchase for all electrical parts and the racquet clamp. Should any defects develop under normal use within the specified time periods, GAMMA will at its option, repair or replace the defective EQUIPMENT provided it is returned to GAMMA prepaid at the purchaser's expense. This warranty does not apply to any damage or defect caused by negligence, abuse, misuse, unauthorized alteration, shipping, handling or part wear and tear as a result of normal use.

Any routine maintenance, adjustment, and cleaning required to ensure proper operation are the responsibility of the purchaser and are not covered under the terms of this warranty.

GAMMA's obligation under this warranty is limited to repair or replacement of defective EQUIPMENT, and no one is authorized to promise any other liability. GAMMA shall in no event be liable for any incidental or consequential damages.

To return defective EQUIPMENT, a return authorization (RA#) must be obtained from a GAMMA customer service representative by calling 1-800-333-0337 or 412-323-0335. The RA# must be marked on the outside of the shipping carton being returned. All returns must be shipped prepaid by the customer to GAMMA. Please retain the original shipping carton and packing materials for any future shipments. GAMMA will not be responsible for machines that are not sent in the original undamaged packaging.