

2086 Professional Tension Head

Powered by TennisHead®

THERE'S NO PERFECT RACKET
WITHOUT PERFECT STRINGING



**SERIES 14
INSTRUCTION BOOKLET**

SAVE THIS BOX AND PACKAGING MATERIAL.

- It is the safest way to ship the 2086 in case it requires service.
- Treat the 2086 as you would any fine electronic instrument.
- Keep the tension head away from damp areas.
- Do NOT use outdoors.



POWER SUPPLY



POWER CORD



FOOT PEDAL
OPTIONAL PURCHASE



BRACKET



HEX WRENCHES



GRIPPER ADJUSTING HEX DRIVER
OPTIONAL PURCHASE



U.S. PATENT NO. 8,206,249 BI

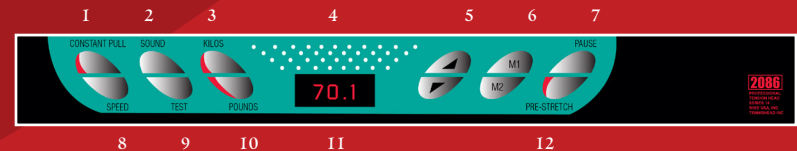


ON/OFF SWITCH

USB PORT

This is only to be used by repair person and should not be used by customer.

KEYPAD CONTROLS



- | | |
|---|---|
| 1. CONSTANT PULL - always keep the set tension. | 7. PAUSE - stops gripper momentarily. |
| 2. SOUND - turn ON/OFF sound. | 8. SPEED - change pull speed for better control of thinner string |
| 3. KILOS - set tension to kilos. | 9. TEST - resets all the controls. |
| 4. DOTS - push to begin tensioning. | 10. POUNDS - sets tension to pounds. |
| 5. UP/DOWN - increase/decrease tension, speed, and pre-stretch. | 11. DISPLAY SCREEN - digital display screen. |
| 6. M1/M2 - save tension into memory for later use. | 12. PRE-STRETCH - automatically pre-stretches tension. |

THE TENNISHEAD 2086 PROFESSIONAL TENSION HEAD

Replaces the spring tension head on most manual (crank) machines. Almost all drop weight machines can be fitted with a 2086 by using a **BRACKET** adapter.

ATTACHING THE BASE

Lay machine face down on a soft cloth. Attach base to the 2086 by using the three screws and the wrench supplied. Tighten the center screw first before the rest. Do not overtighten.

INSTALLATION

By now you have removed your previous tensioner. Save foam-lined shipping container. Use it for storing. Slide the 2086 onto the tension bar and place it so that there is three inches between the Diabolo and head of the racket mounted on your machine. The 2086 is not a 360° machine. To ensure the most accurate pull, we placed the string gripper on the same level as the string bed. You will be able to spin the turntable in the opposite direction after each pull.

STARTING UP

Plug the power supply (thin wire) into the back of the 2086. It only fits into one of the two rear sockets near the **ON/OFF** switch. Plug the heavy line cord into the power supply and the other end into the wall outlet. It activates the red button switch. It is easy to press the red button when putting string through the gripper jaws.

SWITCHING ON

Turn on 2086, the gripper will then cycle slowly and the display will show a series of numbers as it turns on. Choose whether you want to use pounds or kilos. Press and hold arrows for faster changes.

SETTING TENSION

After you choose pounds or kilos, a red light will turn on next to the setting. Change tension setting with **UP/DOWN** keys and touch key to adjust by 1/10th LB (KG) increments. Hold down arrow for faster results.

KNOT OR NOT

Adding extra pounds for the knot? just hit the **PRE-STRETCH** button.

ACTIVATING THE GRIPPER

There are three ways to activate the gripper:

1. Press dots above **DISPLAY SCREEN** to move gripper back and forth.
2. Use the lever switch located on gripper. It is the same as a foot pedal.
3. You can also press and hold the pause button.
 - This might be useful if you need to stop to adjust the tangled string or loose grommets.

CONSTANT PULL

The 2086, like other electronic machines, features **CONSTANT PULL**. After reaching the set tension, the electronics maintain the set tension even if the string elongates. Mechanical machines can't do this. If you want to duplicate the method of your old machine, turn off setting for this. Otherwise check if the light is on.

TEST

When the machine is turned on, it tests its circuitry and displays an error code. When that happens it means that some part of the machine needs attention. The test button has the same function. Remove string from the gripper during test (or startup) otherwise the machine will set to a false zero.

PULLING

When you hear a double beep, you have reached the set tension. Time to clamp it off. The display will continue to show the actual tension as the string stretches. A **CODE 7** on display means the gripper reached the limit but did not tighten the string. Add some slack with the string and start over.

SOUND

This button is to turn **ON/OFF** the beeping sound with each pull.

MEMORY

Select a tension tension you use often and save it in the memory by holding **M1/M2** until you hear a double beep. It is now in the memory and can be recalled by pressing the same button.

PRE-STRETCH

Turning on pre-stretch allows the 2086 to pull beyond set tension and return to set point. Press **PRE-STRETCH** button and you will see 10, 15, 20, or 25% pre-stretch. For example, stringing at 55 LBS (50+10%) and return to set tension of 50 pounds. Stringers often do this with gut string in order to remove some initial elasticity of the string.

DIABOLO

The **DIABOLO** (or diablo) now comes attached to the gripper with a new design that includes being built into the design. The bobbin faces towards you in front of the gripper. Wrap the string from racket once clockwise around the bobbin and then into the gripper. To remove the **DIABOLO**, use the new small allen wrench that comes taped to the gripper. The **DIABOLO** can be removed from the bobbin back screw. It can also be completely removed by screws that holds it together by using the same large hex wrench that is used to install the gripper.

POWER SUPPLY

The 2086 has a self-adjusting power supply that operates from 90-220 volts automatically. There are no fuses or parts the user can alter or repair. If the pilot light is not on, verify that the house current is working in that outlet.

WARRANTY

The 2086 has a free **TWO YEAR** warranty from date of purchase. During that time, the machine may be returned for inspection, calibration or repair at no charge. It is assumed that the machine has been used the way it was intended and has not been modified or altered. It is the customer's job to return the 2086 to **TENNISHEAD INC.** at the their own expense. We may also apply a nominal shipping charge when returning the machine.

RETURN AUTHORIZATION

Before returning the 2086 or any **TENNISHEAD®** product that requires service, you must fill out a **RETURN AUTHORIZATION FORM** on **TENNISHEAD.COM** under support. Return machine in well cushioned box with at least three inches of insulation of protection and include the return form. The 2086 is electronic so mark the box as **FRAGILE**.

RETURN ADDRESS :

TENNISHEAD INC.
131 SOUTH LAMER STREET
BURBANK, CA 91506

SPEED STRINGING

Much has been said recently of the time it takes to string a racket, and which machine can do it faster. Consider this: a competent stringer might take **20-30 MINUTES** to do a good job. That means consistent pulls, clean grommet holes (no burrs), tubes where appropriate, sturdy knots. Forty pulls per racket at **THREE SECONDS** each, which accounts for less than **120 SECONDS**. So if you want to speed the process, then improving your weaving speed seems the way to go. The company that featured the speed races has announced they are no longer selling stringing machines.

LIABILITY

TENNISHEAD INC. is not responsible for the manner in which machine is used or how it is operated, nor responsible for any loss, injury, or damage to the individuals, rackets, string, or property as a result of using the machine.

ADJUSTING THE GRIPPER

The 2086 is a low maintenance machine. The jaws of the gripper should move in and out easily. If not, put one drop of **3-IN-ONE®** brand oil to the roller bearing channels on each side of the gripper. The gripper has a string thickness adjustment. Turning the internal screw clockwise tightens the jaws.

ADAPTERS

It is best when the string is pulled straight with minimum angle between the racket and the gripper. **TENNISHEAD®** is compatible with all crank machines. Some stringing machines, notably **GAMMA STRINGERS**, require the use of an adapter to raise the 2086 to the level of the string bed. **DROP WEIGHT MACHINES** can be converted to an electronic with a special adapter. We sell these at a nominal cost.



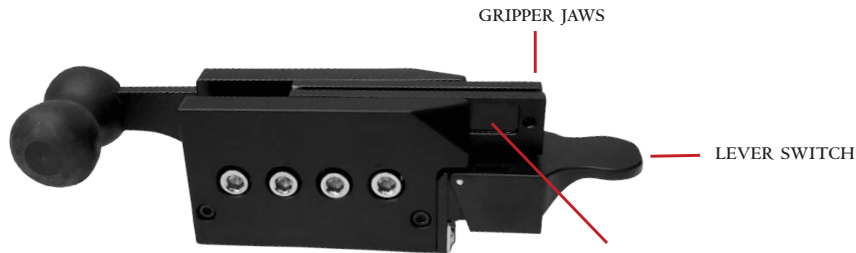
DROP WEIGHT ADAPTER



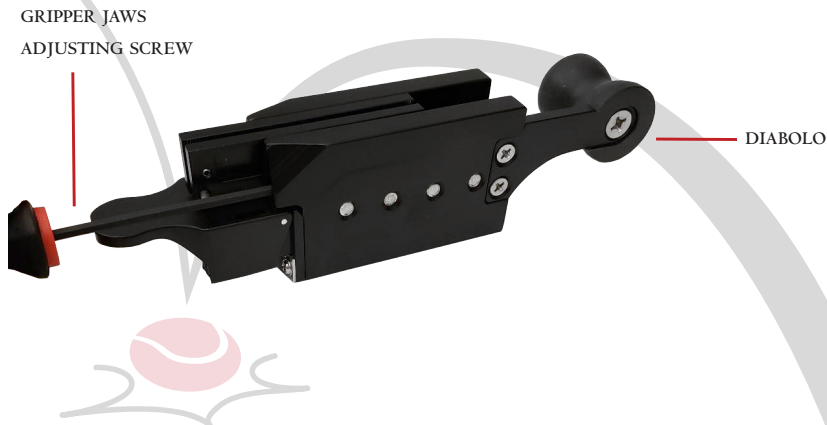
GAMMA ADAPTER

This is an extension to lift the 2086 for **GAMMA CRANK MACHINES ONLY**.

GRIPPER CARE



GRIPPER PLATES
Lay the 2086 on its side and add two drops of 3-IN-ONE® oil on each side from time to time.



2086 ELECTRONIC TENSION HEAD SERIES 14 - ON THE FIELD CALIBRATION

The 2086 PROFESSIONAL TENSION HEAD should be as accurate as +/- 0.2 LBS. 0.5 LBS off is the average for most stringers.

NOTICE: This machine already comes calibrated. It only need recalibration when traveling, dropped, or subject to sudden impact.

Equipment Needed: 2090 CALIBRATOR or other accurate instrument for reference. Spring calibrators are not accurate enough to calibrate the tension head.

TIP: If you have a WISE 2090 CALIBRATOR, we suggest you use it for this.

CALIBRATION STEPS

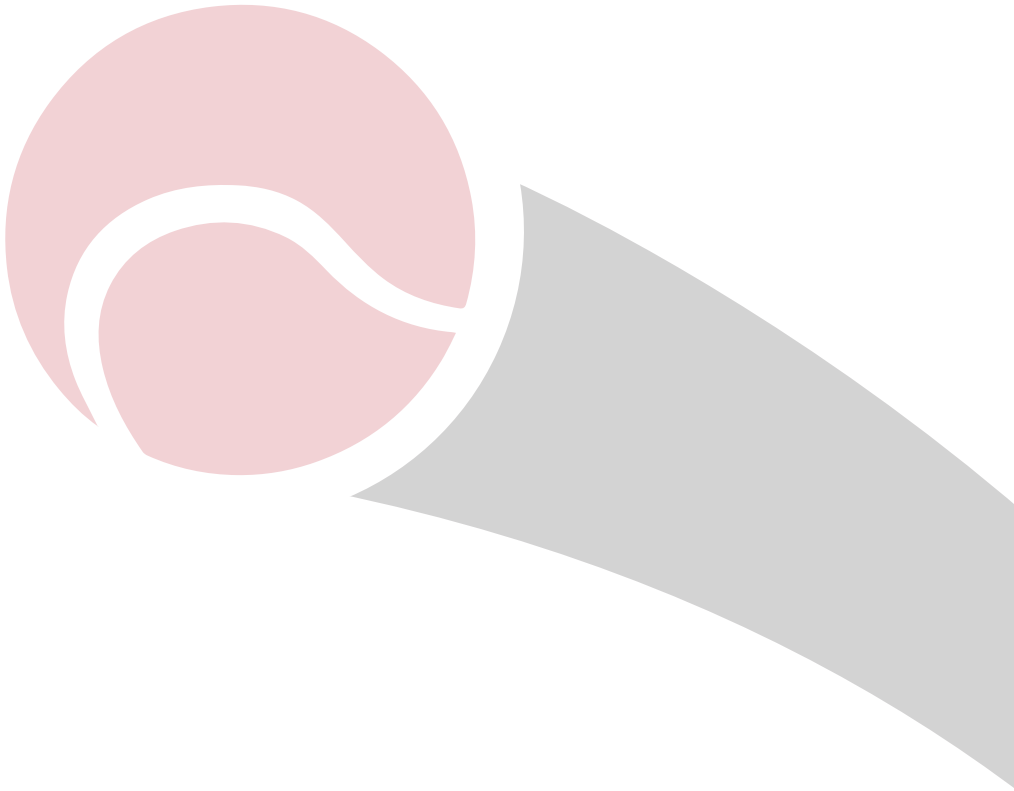
1. Power on the 2086. It should be ready for pulling after the self test.
2. Press **MI** and **SPEED** button simultaneously. The machine will self test automatically once.
3. The display will flash **C-4** automatically three times.
4. The 2086 then displays **45.0** on its own. Load string and make sure the 2090 CALIBRATOR is clamped on one end of the stringing table side.
TIP: Most use a swivel fixed clamp (use piece of string on each end)
5. Activate the pulling function key by pressing the dots or lever switch.
6. Wait a moment, then press the **+** or **-** to adjust the display to match the calibrator, then press test as soon as possible.
7. The display will flash **THREE TIMES**, then will move to its rest position.
8. Take out the string as soon as possible. The machine will then run a self test automatically.
9. Within **TWO TO THREE SECONDS**, the calibration will be complete.



NOTE: For older versions, please contact us for calibration instructions.

QUESTIONS?

For questions about the adaptability of your machine, feel free to call us at 818.209.5130 during business hours in Los Angeles. Or email at DAN,TENNISHEAD@GMAIL.COM.



CONTACT: DAN.TENNISHEAD@GMAIL.COM
PHONE: 818.209.5130
WEBSITE: TENNISHEAD.COM

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