2086 Professional
Electronic Tension Head

Instructions

The 2086 Professional Tension Head replaces the spring tension head on most windup (crank) mechanical machines including all Alpha, Century, Eagnas, Ektelon®, Gamma, Gutterman, New Tech, Pro's Pro, Toalson, Winn, Zebest and many others.

Installation
Lay the 2086 face down on a soft cloth. Attach the base to the 2086 using the three supplied bolts. It's best to tighten the two outer bolts finger tight, then all three using the wrench supplied

Remove your current crank tension head. Slide on the 2086. Allow about three inches for the racket head to pass the 2086 without hitting. Use the same wrench to tighten the machine to the tension bar. The gripper will be near the same horizontal level as the racket string bed. This gives the most accurate reading. The 2086 is not a 360 degree machine.

Starting Up
Plug the Power Supply (the thin wire) into the back of the 2086. It fits in only one of the two sockets near the switch. The other socket is for an optional foot switch sold by Wise USA. Connect the Line Cord (the separate heavy wire) to the Power Supply, then the other end of the line cord into the wall. Press the switch On. The display will show a series of numbers and recycle to check its functions. Keep the machine out of moisture. The 2086 is designed for indoor use.

Activating the gripper
Press the dimpled area (bumps) above the display to move the gripper either forward or to return it to its start position. Of course if you have a foot switch it can be used for the same functions.

Setting Tension
Choose Pounds or Kilos. The appropriate light will come on. Change tension settings by pressing the arrow keys. Hold down the arrow to change the tension by one pound (kilo). Or, momentarily touch the arrow for changes by tenths of a pound. The tension is shown on an LED display in the center of the dashboard. A code "7" indicates the end of the track was reached before you achieved the set tension. Start over by taking some of the slack out of the string.

Constant Pull
Electronic machines use Constant Pull. After reaching the set tension the electronics maintain the set tension even if the string stretches. Mechanical machines don't do that. They stop dead after reaching the set tension. If you want to duplicate the method of your old machine set Constant Pull off. Otherwise check that the Constant Pull light is on.

Speed
The default speed is 3, the fastest. Change stringing speed by holding down the speed button. The current setting is displayed. While holding the key down press the Up/Down arrow to choose between 1, 2, or 3. Speed changes are only visible when string is being tensioned.

Memory
To place the current tension setting in memory press M1 until you hear a double beep. You can store a different tension in M2. Press either button momentarily to restore the memorized tension. All settings (except count) remain in the computer memory even after the machine is turned off, readying you for your next day's work.

Prestretch
If you choose to use pre-stretch, hold down the Pre-stretch key to display the current setting. While holding the button down use the Up/Down arrow to choose between 10, 15, 20 or 25% over-pull. For example, setting tension at 50 pounds, and pre-stretch at 10%, the 2086 will pull to 55 pounds, pause, then return to the set tension (50 pounds). Warning: A setting of 65 pounds and a pre-stretch of 25% will result in a pull of more than 80 pounds and places a severe strain on the racket. The 2086 Pro will never pull more than 86 pounds regardless of the setting.

Beeps
The set tension is reached when you hear the double beep.
The display will show variations because of the elongation of the string. Sound can be turned on/off by holding down the Pounds or Kilos button and pressing the Up arrow for sound on, Down arrow for sound off. This disables the final double beep, which sounds every time the set tension is reached

Pause (Creep)
The Pause button has two functions. Hold it down to *ease* the gripper forward. Releasing your finger from the button will stop the machine. This is extremely handy when you want to move the gripper just enough to untangle string and adjust grommets. Another feature of the pause

button. If the machine is started using the Start Bumps the Pause button will temporarily stop the forward movement of the gripper. Press it again to re-start. Press the Start Bumps to return.

Count
Press the Count button to see the results of each stringing session. Shutting off the machine will erase this number.

Test
When the machine is turned on the internal computer tests its circuitry, cycles the gripper and displays an error code in the event some part of the machine needs attention. The test button will do the same. Remove string from the gripper during test (or startup) otherwise the machine will set to a false zero.

Power Supply
The 2086 uses a self-adjusting power transformer that operates from 90 to 240 volts automatically. There are no internal fuses or parts that the user can change or repair. An error code will reveal if the machine needs repair. If so, contact Wise USA for instructions.

Calibration
This unit is self-calibrating. In the factory, computer equipment sets the calibration before the unit is shipped. In the event you feel calibration is necessary it can be done without returning the machine. But unless you have extremely accurate calibrating equipment it is not recommended that you perform this function. A spring calibrator is **not** considered accurate enough to calibrate the 2086 Pro and you will misalign the machine using just this as a measuring tool.

Calibration should be performed at 70 to 85 pounds.

1. Using string, start a pull as normal, when the unit has reached the set tension press the Pause button.
2. Press the Test key. The display will flash 111 to confirm you are in the Calibration mode.
3. Use the Up/Down keys to make the display match the **precision** calibrator you have mounted between the gripper and the racket.
4. To save the new calibration value press Test once again. You now have 9 seconds (as counted down on the display) to press the Speed key, then the Pound key. The display will flash 999 momentarily to indicate the new calibration data is saved.
5. At any time when in the Calibration mode, pressing the count key will return all factory settings. Or, pressing the dimpled (start) key or foot switch before saving the data will discard the new value and return to the previous setting.

Warranty Terms
The 2086 Professional Tension Head is warranted to be free from manufacturer's defects for a period of two (2) years from the date of purchase. During that time the machine may be returned for inspection, calibration and/or repair at no charge. It is assumed that the machine has been used in a manner for which it was intended and has not been modified or altered in any way. It is the obligation of the customer to return the machine to the manufacturer, at the customer's expense, and
packed as when originally shipped from the factory. On its part Wise USA, Inc. applies a nominal shipping charge to return all warranty or non-warranty shipments.

Liability
Wise USA, Inc. is not responsible for the manner in which this machine is used or how it is operated, nor is Wise responsible for any loss, injury or damage to individuals, rackets, string or personal property as a result of using this machine.

Welcome
The latest version of the 2086 Professional Digital Tension Head is in the 10 series. We welcome your views on improving its use. If you have any questions about how the machine works, call us toll free
(888) T-E-N-S-I-O-N [836-7466]. We value your comments and look forward to hearing from you. We're on the web at www.Tennishead.com, email us at service@tennishead.com.

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