Pro's Pro
Pilot and XP-Plus
Stringing Machines
Users Manual
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APPENDIX

APPENDIX A

Adjusting the Swivel Clamp Base

1. Put the swivel clamp base into the position on the track as shown in the diagram. The rubber plug will be pointing outwards. Remove the rubber plug.

2. Insert a 3mm Allen key into the hole provided, as illustrated.

3. If the swivel clamp base does not slide on the track smoothly, turn the Allen key slightly anti-clockwise. If the swivel clamp base cannot be held in position, turn the Allen key slightly clockwise. Do not use too much force when doing this!

CAUTION: Because it is made of special material it may initially be difficult to turn the Allen key. In this case use pliers to help.

4. Replace the rubber plug.

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7. Calibration

If the stringing machine is not correctly tensioning, the calibration may need checking. Wearing safety goggles during calibration is recommended.

Firstly fix strings to each end of the tension calibrator. One end is fixed to one of the two swivel clamps, then lock this clamp and the other end goes into the string gripper.

Now set 30 pounds (lbs) on the dial of the crank and turn the crank until the crank locking lever springs out (brake on). Now check the weight displayed on the tension calibrator.

Now release the tension on the crank. (Release the crank locking lever from its anchorage again).

Do this two or three times to get a good reading.

If you need to make an adjustment, unscrew by two turns the locking screw marked in the photo. Round the side is the adjustment screw - turn this clockwise to decrease the tension and anticlockwise to increase the tension.

Now repeat the process and check whether the 30 pounds are now displayed on the tension calibrator. These steps must be repeated until the tension set matches the tension displayed on the tension calibrator.

Now increase the tension on the dial to 60 pounds and check this again using the tension calibrator and if necessary make adjustments.

When the two tensions have been correctly set the crank is calibrated. If you only string badminton frames it is better to calibrate only at the lower tension of 30lbs.

*described in greater detail on the following pages
1. **Unpacking and inspection**

   The stringing machine is shipped in one box and is protected by poly-styrene. XP machines are in two cartons. Any transport damage or damage to the packaging must be reported to the carrier immediately!

   The shipment contains the following components:
   - Base plate, stringing machine (incl. support arms, K-shaped side supports, tracks and swivel clamp bases pre-assembled)
   - One small box containing accessories (2 x deluxe swivel clamps, awl, bent pointed pliers, string cutter, crank lever to be placed on the crank, set of Allen keys)

   If any component is missing or damaged, please contact us. Retain the original packaging in case you need to make a claim.

2. **Assembly instructions**

   Step 1. Mount the machine on the base plate by inserting it in the square opening provided for it and screwing down tightly with the Allen key supplied with the shipment. The Allen screw is already located in the square socket where the machine will fit. It helps to lift the track to the horizontal as you tighten the Allen screw.

   Step 2. Place the crank lever on the knob provided for it on the crank (you can attach the lever to either side of the crank - depending whether you are left- or right-handed.

   Step 3. Now place the four K-shaped side supports on the support arm and the two deluxe swivel clamps into the swivel clamp base.

   For XP machines the stand will need to be assembled first together with the tool tray before placing the stringing machine on the stand.

6. **Trouble shooting**

   1. The swivel clamp does not hold the string in position?
      - Clean the jaws of the swivel clamp and or turn the wheel of the swivel clamp while open to reduce the gap in the jaws.

   2. The string slips through the string gripper?
      - Clean the string gripper as stated in point 6 of Maintenance. Reduce the distance in the string gripper by turning the string gripper adjustment screw anti-clockwise until the string is securely held.

   3. The swivel clamp does not move smoothly?
      - Clean the extension of the swivel clamp, the inside of the mount on the swivel clamp base and the tracks on the turntable. After cleaning, lubricate the extension of the swivel clamp and the inside of the mount on the swivel clamp base.

   4. The base of the swivel clamp cannot be held in position?
      - Clean the tracks on the turntable. Adjust the base of the swivel clamp according to the instructions in Appendix A.

   5. The finished tension is incorrect?
      - Calibrate the machine.

   6. The tension head slips back and does not hold the set tension?
      - Check the small cog that runs along the track at the back of the tension head as the Allen screw in the cog may have come loose. Tighten this but make sure the screw is located on the flat of the spindle.

   7. The crank handle goes round and the tension head does not move down the track?
      - As above the Allen screw on the cog is loose

      If you are not sure how to proceed please ring for advice!
3. **Securing the racket ready for stringing**

**Step 1.** Loosen the locking knobs of the two supporting columns by turning them anti-clockwise. Place the racquet carefully on the support arms. Place the supporting columns so that they are held centrally in position on the turntable by the locking knobs. Never use excessive force for this! Check that the two swivel clamps can reach the entire area of the frame.

**Step 2.** Turn the micro-adjustment knobs of the support arms to hold the racquet in position - don't turn too tightly!

**Step 3.** Tighten the locking knobs of the supporting columns on the underside of the turntable.

**Step 4.** With the micro-adjustment knobs of the throat mounting align the racquet evenly and tension it slightly - do not over tighten.

**Step 5.** Put the K shape side supports in position and wind in the support knob until the K shape touches the frame. Do not over tighten as this will distort the frame. The K blocks are designed to prevent the frame from distorting outwards.

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5. **Maintenance**

1. The Pro's Pro PILOT stringing machine is correctly adjusted and calibrated on an electronic calibrator before despatch. It is designed to work easily and be relatively maintenance-free.

2. Always place the machine on a clean and secure surface and keep it away from dust, grease, damp and heat.

3. Clean the Pro's Pro PILOT stringing machine frequently to prevent accumulation of dust and dirt. Clean the surface of the machine with a soft cloth or brush, especially to remove dust from the string gripper.

4. Do not clean the plastic with detergents (such as benzene or similar agents) which may damage the plastic.

5. Use isopropyl alcohol or methylated spirit and a soft, clean cloth to clean the swivel clamps, the tracks, the string gripper and the inside of the swivel clamp bases.

6. Use a fine emery cloth to remove the residues of strings on the swivel clamps and the string gripper. - but do not use sand paper.

7. Use a light machine oil, such as sewing-machine oil, to lubricate the extension of the swivel clamps and the inside of the mount on the swivel clamp bases.

8. Do not lubricate the tracks of the turntable!

9. Do not use penetrating oil for cleaning or lubricating.

10. Check the swivel clamps/swivel clamp bases of the Pro's Pro PILOT frequently to ensure that they are holding the string correctly. If necessary use the 3mm Allen key to reset them correctly.

11. After stringing, reset the weight to 0 lbs to relieve the tension on the spring.
4. **Setting the tension**
The tension is adjusted using the tension adjustment knob on the right, on the back of the crank. The tension set can then be read on the dial (in kilograms and pounds). The numbers (0, 1, 2) marked on this knob indicate steps in one pound increments.

![Image of tension adjustment knob and scale](image1)

As soon as the set tension on the tension head is reached (i.e. the string which is being tensioned backwards by the string gripper due to the movement of the crank) the brake is automatically triggered. This causes the crank locking lever to spring out of its anchorage (Fig. 2). The tension head cannot then be moved any further. The string can now be clamped. To release the brake, hold the black knob firmly and press the locking lever back into the anchorage (Fig. 1). Then wind the tension head forward ready for the next string pull.

It probably worth while setting the tension at say 5lbs and understand how the tensioning mechanism works before starting to string a frame.

**Important**
When you have finished stringing, always return the tension setting down to 0, this takes the strain off the tension spring.

![Image of tension head](image2)

**Disengage the tension head**
You may want to move the tension head along the track to reposition it or get the tensioning knob in a different starting position. To do this look on the underside of the tensioning head, there is a small metal plate hanging down. This "lever" enables the tension head to be pushed forward or back above the "track run". By lifting this "lever" the tension head is released from the track and can easily be pushed forwards or back. See Fig. 3

![Image of tension head disengaged](image3)