

GAMMA PROGRESSION ST



OWNER'S MANUAL

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GAMMA PROGRESSIONST OWNER'S MANUAL

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LIMITED WARRANTY

GAMMA SPORTS ("GAMMA") warrants to the original purchaser that the GAMMA PROGRESSION ST stringing machine ("EQUIPMENT") purchased is free from defects in materials and workmanship for a period of five (5) years from the date of original purchase for mechanical parts (excluding string clamps), and for a period of one (1) year from the date of purchase for string clamps. 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.

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. 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 which are not sent in the original undamaged packaging.

FEATURES



Professional Six Point Mounting System - Accomodates All Racquets Without Adapters

Parallel Jaw String Gripper w/ Diamond Dust Coated Gripping Surfaces

Professional Dual Action, Diamond Dust Coated, Fixed String Clamps

Durable Polystyrene Base Cover w/ Convenient Padded Tool Tray

Strong, Light Weight, Powder Coated Molded Aluminum Construction

ASSEMBLY INSTRUCTIONS



Machine Base Setup

Remove all parts from the shipping cartons. Set the base with attached tensioner bar onto a table or floor.

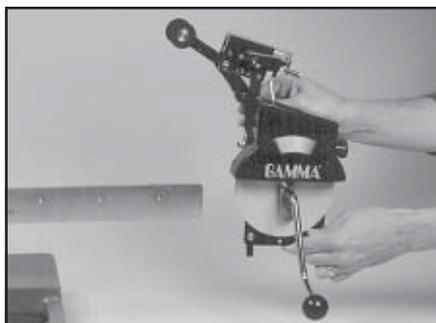
When purchased with the optional floor stand, it is more convenient to attach the base to the floor stand at this point. See instructions provided with the optional floor stand.



Installing the Turntable

The turntable is located on top of the foam packing in the shipping carton.

Insert the center post of the turntable into the bushing located in the top of the tensioner bar post.

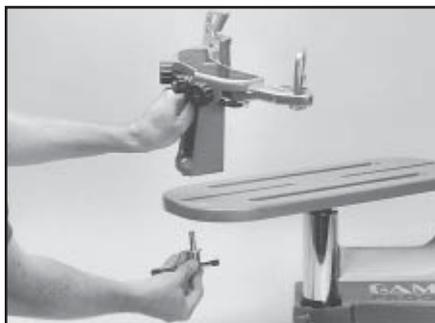


Installing the Tensioner

Remove the button head screw and washer located at the end of the tensioner bar with the 3 mm hex wrench provided. Slide the tensioner onto the bar, being careful to align the bar with all of the bearings and the drive gear with the gear track. Replace the set screw and washer into the end of the tensioner bar.

Note: The tensioner bar is equipped with a tensioner travel stop to limit travel of the tensioner along the bar. See page 7 for more details about this feature.

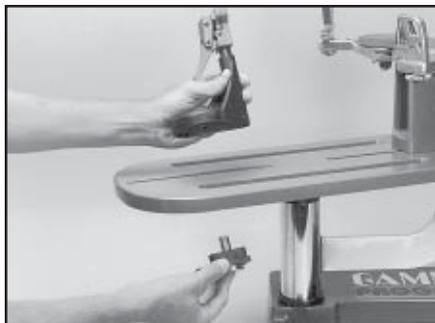
ASSEMBLY INSTRUCTIONS



Installing the Frame Support Posts

The Progression ST support post assemblies are precision aligned at the factory and are marked for proper installation on the turntable.

Install the support post with the dot on its base to an identical dot on the turntable. Align the threaded hole in the bottom of the frame support post with the slot in the turntable. Screw the lever lock bolt with washer into the bottom of the support post and tighten gently. Position the washer with the rounded edge toward the turntable. Repeat procedure on the opposite side of the turntable.



Fixed Clamp Installation

To install the clamps, remove the winged lock knob to separate the knob from the lower guide bushing. Be careful not to lose the thrust bearing components located in the center recess of the knob.

Align the clamp base with the clamp slot of the turntable base. Insert the lower guide bushing into the clamp from the bottom of the turntable making sure to engage the guide with the clamp slot.

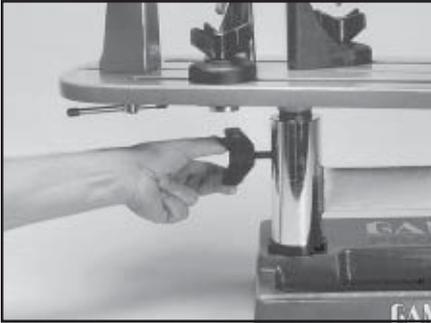


Place the load bushing into the top of the clamp base mating it to the lower guide bushing. After checking that the thrust bearing is positioned correctly in the base of the winged lock knob, screw the knob into the base bushing until fully seated.

The post of the string clamp head and tube of the string clamp base are treated with grease to provide protection against corrosion during shipping. Remove any excessive grease with a clean cloth prior to use. The post and tube may also be cleaned with isopropyl alcohol. After this type of thorough cleaning,

the post and tube should be treated with a light coating of machine oil to protect the surfaces against corrosion and to ensure smooth operation.

ASSEMBLY INSTRUCTIONS



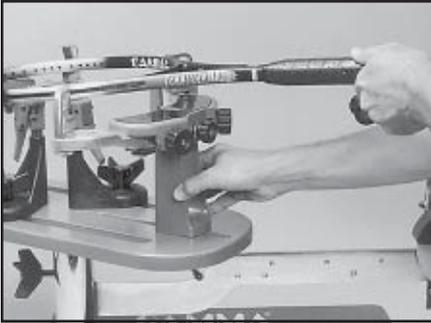
Locking the Turntable

The turntable may be locked in any position.

The turntable winged lock knob is packed separately in the accessory polybag. Install the lock knob into the threaded hole located on the side of the tensioner bar post.

Rotate the knob clockwise to lock the turntable, and counter-clockwise to release the turntable.

MOUNTING THE FRAME

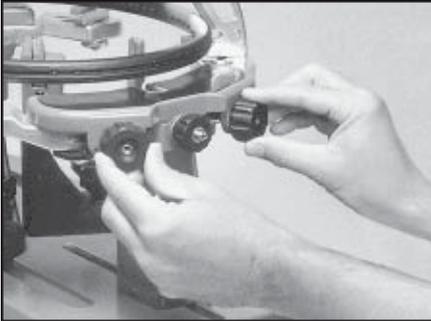


Adjusting the Frame Support Posts

Place the racquet frame over the center posts and onto the frame support. Loosen the lever lock bolt on one support post. Slide the post outward until the center support of the racquet support slide is positioned near the inside surface of the racquet frame. Securely tighten the lever lock bolt.

Adjust the opposite post using the same procedure.

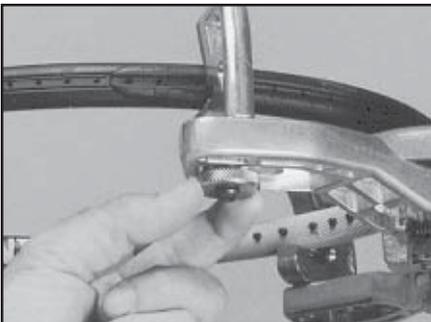
Caution: To avoid racquet damage, the center posts should not contact the racquet prior to fixing the support posts.



Adjusting the Frame Shoulder Supports

Being sure the shoulder supports are free to swivel in their mountings, simultaneously rotate the shoulder support adjustment knobs clockwise until both shoulder supports gently and squarely contact the frame.

Tighten the Frame Support Slides at the head and throat of the racquet until they gently contact the frame between the two center main string grommets.



Securing the Frame

Lock the shoulder supports in position by turning the knob at the base clockwise.

Repeat the adjustment procedure for the remaining support post.

Re-tighten all of the frame supports in the same order as before.

Do not overtighten any of the supports as racquet damage may occur.

The supports should be tightened to the point where the racquet frame will not move in the mounting system when the handle is grasped and attempts are made to move it. Should any supports lose contact with the frame while stringing, they should be re-tightened.

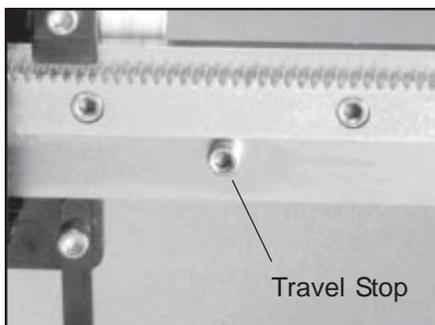
STRINGING THE FRAME



Setting Tension

The Progression ST utilizes a rotary adjusting knob along with a linear tension scale to indicate the tension setting. The scale is divided into 3 lb increments and each 1/3 turn of the tension knob changes tension by 1 lb. To set the desired tension, rotate the tension knob and align the mark on the spring guide with the desired tension setting on the scale. When the "0" mark on the knob aligns with the line on the knob support the tension will be that indicated on the scale. To increase tension by 1 or 2 lbs turn the knob counterclockwise

until the "1" or "2" mark on the knob aligns with the line on the knob support. To decrease tension by 1 or 2 lbs, turn the knob clockwise until the "2" or "1" mark on the knob aligns with the line on the knob support.



Tensioner Travel Stop

To prevent contact between the tension head and the racquet and/or turntable, a stop screw is located about midpoint along the tensioner bar below the gear track. In the event the tension head must be moved closer to the racquet, turn the stop screw counterclockwise with the 5 mm hex wrench until the end of the stop screw no longer protrudes beyond the surface of the tensioner bar. To re-engage the stop, simply turn the stop screw clockwise until the screw is seated against the tensioner bar.



Fixed Clamp Operation - Step 1

The fixed clamps for the Progression ST are of a dual action design. The string clamp and the clamp base operate independently of one another.

To clamp a string, lift the clamp head and place the string between the jaws. Depress the clamp head lever to secure the string. The clamping pressure applied to the string should be adjusted to provide sufficient pressure to secure the string when subjected to the desired pulling tension. The diamond coated gripper plates provide for increased

friction between the clamps and the string to allow for reduced clamping pressure while securing and holding the string under tension.

STRINGING THE FRAME



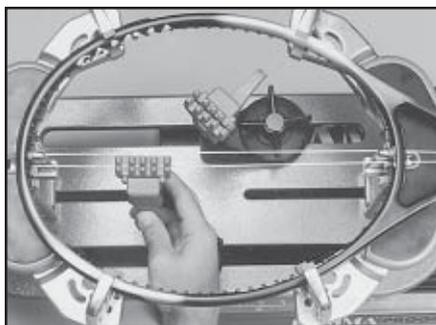
Fixed Clamp Operation - Step 2

Rotate the winged lock knob clockwise to secure the clamp base to the turntable.

Reverse the clamping procedure to unlock the string clamp.

The winged lock knob should be tightened enough to prevent clamp base slippage on the turntable, when the desired tension is placed on the string. To go from the loose position to the clamped position and back, generally requires about 1/2 to 3/4 quarters of a turn. Although when stringing at ex-

tremely high tensions, additional tightness may be required. **Note: If the string slips in the string clamp while tensioning, adjust the gap between the clamp jaws as per the instructions on page 11.**



Clamping the First Main String

To begin stringing the main strings, thread the two ends of the string through the two center holes at the appropriate end of the frame and continue through the opposite center holes. Thread one end of the string through the adjacent grommet hole and pull excess by hand.

Secure one of the strings using a string clamp.

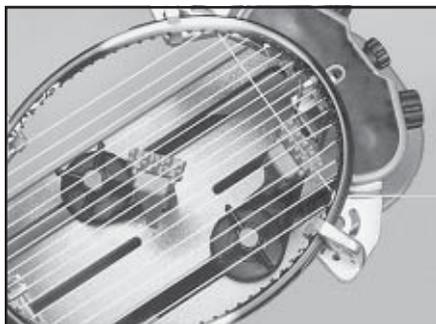


Pulling Tension

Wrap the loose section of string once around the roller guide and insert the string between the diamond dust coated string gripper plates. Pull the string perpendicular to the gripper plates while slowly rotating the tensioner crank clockwise until the brake lever pops out of the latching block. The string is now tensioned and can be clamped in place with the remaining fixed clamp.

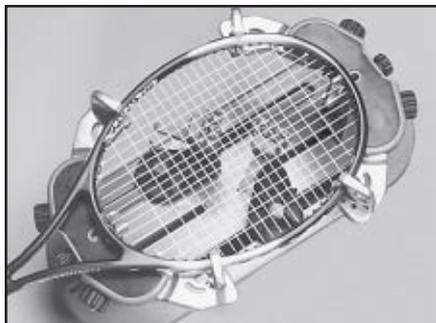
Repeat the above steps until all main strings are installed. Tie off ends of main strings as per racquet manufacturers recommendations.

STRINGING THE FRAME



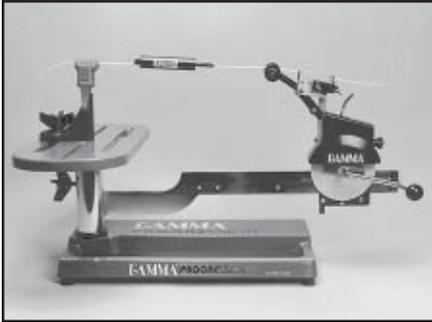
Weaving the Cross Strings

Weave the cross strings over and under the main strings being careful to alternate the weave direction of each consecutive cross string so as to be opposite of the previously installed cross string.



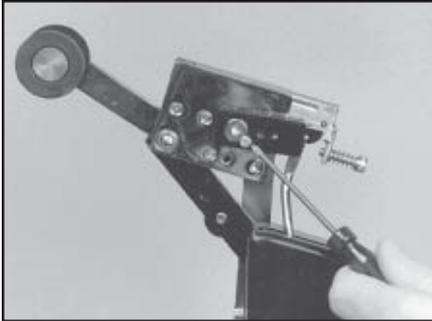
Once the final cross string is tensioned and clamped, tie off at the appropriate hole specified by the racquet manufacturer.

MAINTENANCE



Tension Calibration Procedure - Step 1

Set the tension to 60 lbs. as indicated by the linear scale and rotary knob. Place the string on one end of a tension calibrator into a string clamp and secure. Place string located on the other end of the calibrator into the string tensioner and apply tension. If the brake lever releases before 60 lbs. or after 60 lbs., the tension head should be calibrated as follows.



Tension Calibration Procedure - Step 2

Loosen the plastic locking screw located on the side of the latching block as shown. The plastic screw is used to hold the adjustment screw in place.

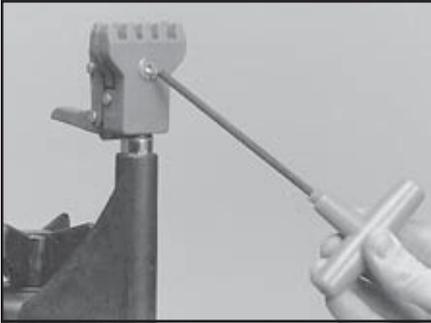


Tension Calibration Procedure - Step 3

If the lever releases before 60 lbs., turn the adjustment screw located on the left side of the latch block counter-clockwise to increase the engagement of the brake release latch with the brake lever. Repeat step 1 and adjust until the correct tension is indicated on the calibrator.

If the tension indicated in step 1 is greater than 60 lbs., turn the adjustment screw clockwise to reduce the engagement of the brake release latch with the brake lever. Repeat step 1 and adjust until the correct tension is indicated on the calibrator.

MAINTENANCE



Adjusting the String Clamps

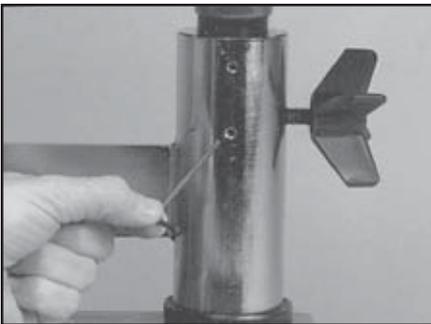
The clamps provided with your stringing machine will need minor adjustments according to what string type, construction, and gauge you are using.

To adjust, route the string through the racquet as if you were beginning the main strings. Clamp the strings and pull tension. If the string slips through the jaws of the clamp, tighten the clamp by turning the flat head screw clockwise with the 4 mm hex wrench located on the side of the string clamp opposite of the handle. If the clamp leaves impres-

sions or damages the string, it is too tight and must be adjusted by turning the hex screw counterclockwise.

The clamp jaws must be clean and free from dirt, oil, and any string coating for them to grip properly. The diamond dust coated clamping surfaces should be cleaned periodically by removing the flat head screw to completely expose the clamping surfaces. Clean the clamping surfaces with alcohol and a nylon brush until all surfaces are clean. Replace the screw and spring to re-assemble the clamps.

Note: The string clamps supplied with your Gamma stringing machine can accommodate tight string patterns such as badminton. Depending on the string pattern, the clamp may spread the strings slightly which will not compromise the quality of the string job.

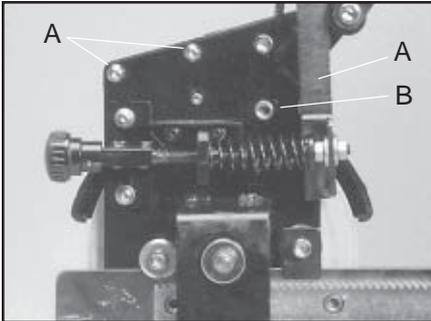


Turntable Bushing Adjustment

The Progression ST is adjusted at the factory for optimum performance. After time and use, the turntable bushings may need minor adjustment. An adjustment is indicated when noticeable turntable looseness or wobble occurs while stringing.

To adjust the fit between the turntable pin and the bushings, tighten the set screws located on the back side of the tensioner bar post using a 3mm hex wrench. Tighten until the turntable rotates smoothly without excessive free play.

MAINTENANCE

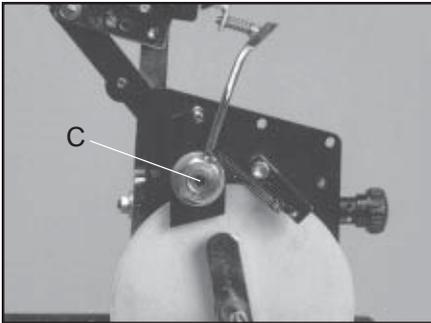


A - Cover Screws

B - Lock Bolt

Adjusting the Tensioner Brake - Step 1

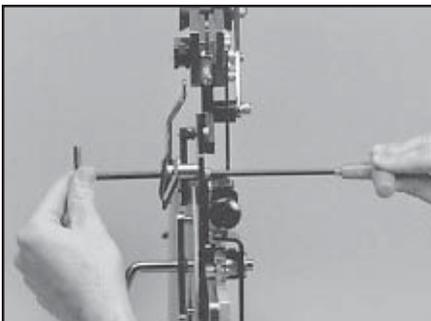
After stringing many racquets, the brake of the tensioner may need to be adjusted. To tighten the braking mechanism, the cover of the tensioner must be removed. To remove the cover, remove the 2 button head screws located on the back side of the tensioner frame near the top of the frame, and the flat head screw located behind the tensioner lever on the back side of the tensioner frame using the 3 mm hex wrench. With the brake lever released remove the cover.



C - Brake Adjustment Bolt

Adjusting the Tensioner Brake - Step 2

With the cover removed, and the brake lever engaged, loosen the lower hex bolt located on the back side of the tensioner frame with the 10 mm box wrench. Note: The hex bolt should only be loosened until loose enough to be turned by hand and must not be removed completely.

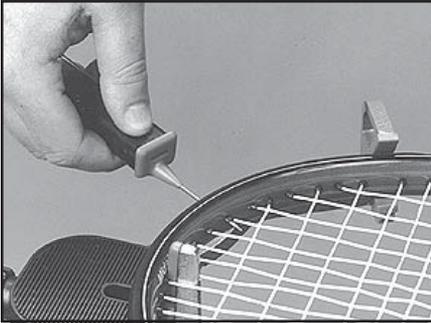


Adjusting the Tensioner Brake - Step 3

With the hex bolt loosened and the brake lever engaged in the latch, insert the 6 mm hex wrench into the set screw located inside the nut located at the base of the brake lever. To tighten the braking mechanism, turn the set screw counter clockwise by about 1/8 turn. Retighten the hex bolt on the back side of the tensioner frame and check for brake tightness. The tensioner should move freely along the track with the brake lever engaged and should hold tension with the brake lever released. If more adjustment is needed, re-

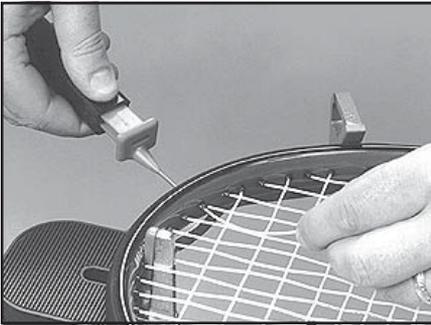
peat steps above until properly adjusted. After adjustment is complete, replace the tensioner cover by aligning the holes of the cover with the holes in the tensioner frame and secure with the 2 button head screws and flat head screw.

PATHFINDERAWL



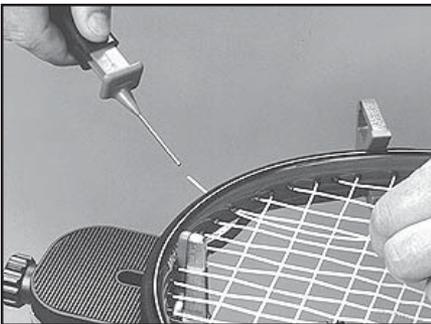
The Progression ST includes the new Pathfinder stringing awl which creates a pathway between or around strings to make inserting a string through tight grommets easier and quicker.

Insert the awl through the grommet hole in the same manner as for traditional awls. The Pathfinder awl must be in the closed position before insertion.



Once the awl is inserted, pull the handle of the awl outward while holding the tip section in place, leaving the outer sheath in the grommet hole.

Insert the end of the string into the center of the sheath.



While holding pressure on the string, slowly pull the sheath out of the grommet hole to leave the end of the string exposed.

TROUBLESHOOTING TIPS

PROBLEM

SOLUTION

String slips in clamps

- Adjust gap between jaws
- Clean clamp jaws

String slips in gripper

- Clean gripper jaws
- Adjust Gripper Jaw Stop Screw

String clamp slips on base

- Clean base of clamp and top of turntable

String clamp winged lock knob is difficult to turn

- Check for proper position of thrust bearing in the base of the winged lock knob

String tension too tight or too loose

- Check tension using a tension calibrator and adjust machine calibration if necessary

For additional assistance, contact Gamma Sports Customer Service at 1-800-333-0337

CARE and CLEANING

With time and use, the clamping surfaces of your machine may become oily or dirty and result in string or clamp slippage while stringing. Periodic cleaning of the following parts is recommended.

String Clamps

Clean the inside gripping surfaces of the string clamp jaws by inserting a cloth or pipe cleaner soaked with isopropyl alcohol between the jaws and rub back and forth. If the build-up is excessive, dismantle the string clamp jaws to expose the gripping surfaces by removing the adjustment screw. Using a small nylon brush, (such as a toothbrush), scrub the inside surfaces until all debris is removed. Clean the jaws with isopropyl alcohol and re-assemble.

String Clamp Base

Clean the base of the clamps and the top of the turntable with isopropyl alcohol.

String Gripper

Clean inner gripping surfaces with isopropyl alcohol soaked cloth or pipe cleaner.

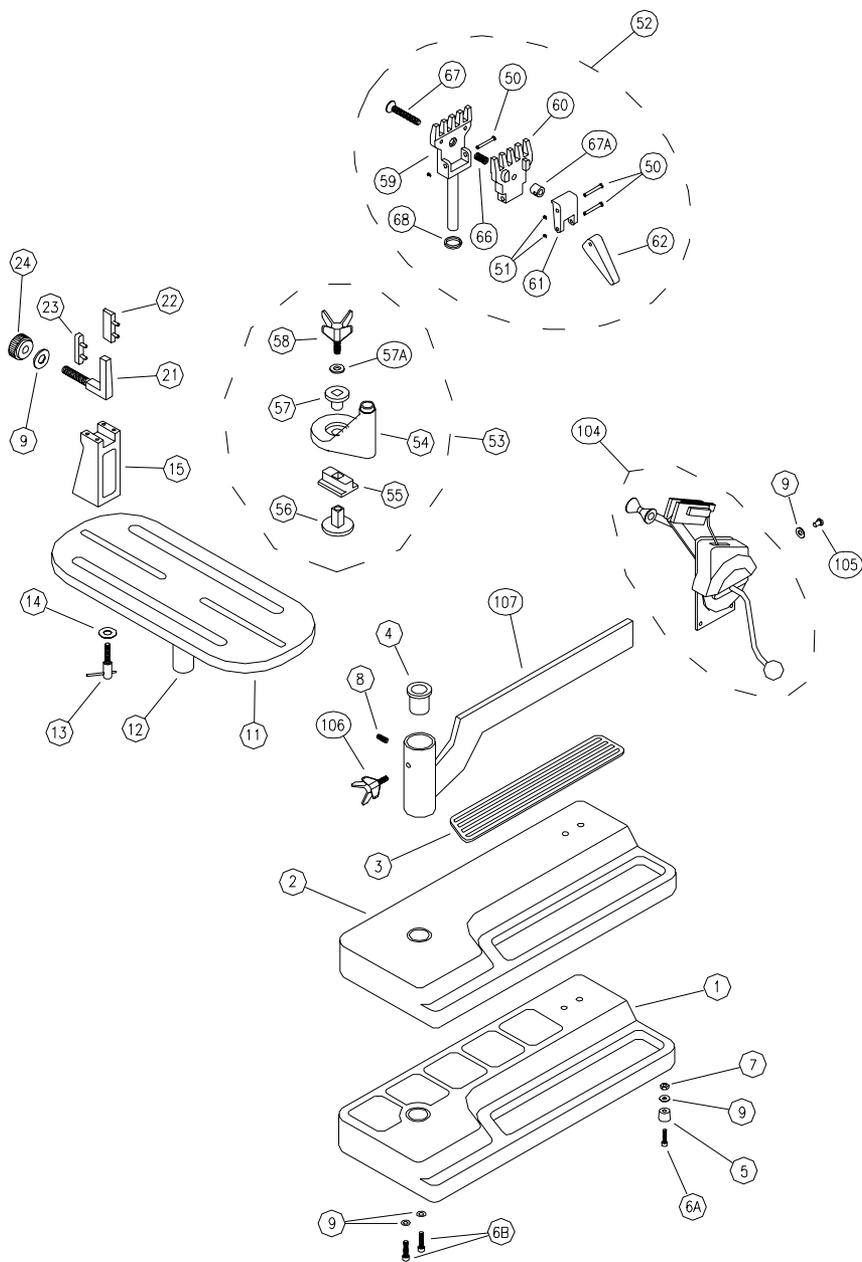
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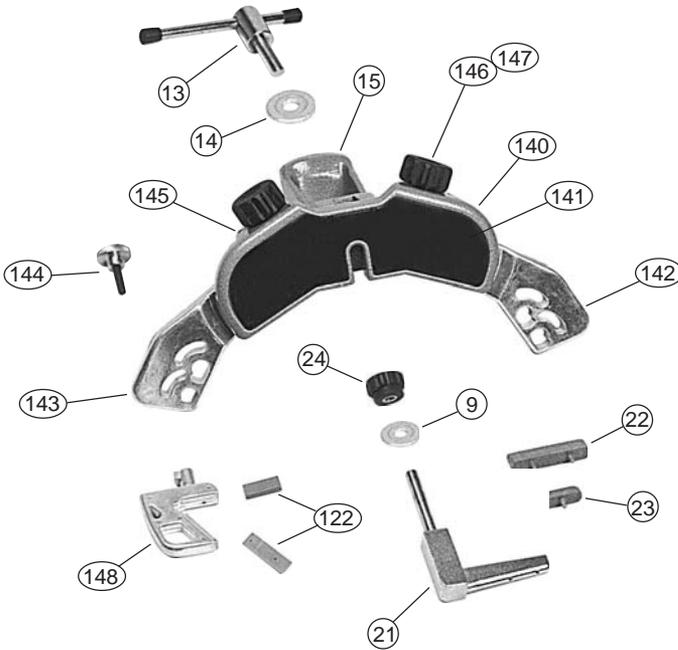
Parts Listing

PART #	DESCRIPTION	PART #	DESCRIPTION
1	ALUMINUM BASE	50	PIVOT PIN
2	BASE COVER	52	CLAMP HEAD ASSEMBLY
3	TRAY PAD	53	CLAMP BASE ASSEMBLY
4	TURNTABLE BUSHING	54	CLAMP BASE
5	RUBBER FEET	55	GUIDE BUSHING
6	CAP SCREW	56	GUIDE BUSHING NUT
7	FOOT NUT	57	LOAD BUSHING
8	BUSHING SET SCREW	57A	RADIAL BEARING
9	WASHER	58	WINGED KNOB
11	TURNTABLE	59	FIXED JAW
12	TURNTABLE PIN	60	LOOSE JAW
13	POST LOCK LEVER	61	PIVOT BLOCK
14	WASHER	62	LEVER
15	SUPPORT POST	66	RETURN SPRING
17	CAP SCREW	67	HEX SCREW - FLAT HEAD
21	FRAME SUPPORT SLIDE	67A	PIVOT BLOCK NUT
22	BADMINTON ADAPTER	68	O-RING
23	TENNIS ADAPTER		
24	KNOB	99	HEX WRENCH / 2.5MM
104	TENSIONER ASSEMBLY	69	HEX WRENCH / 3MM
105	RETAINER SCREW	70	HEX WRENCH / 4MM
106	TABLE BRAKE KNOB	71	HEX WRENCH / 5MM
107	TENSIONER BAR	72	HEX WRENCH / 6MM
		73	PATHFINDER AWL
		74	STRINGERS AWL

EXPLODED PART VIEW



MOUNTING STAND PARTS



PART #	DESCRIPTION	PART #	DESCRIPTION
9	WASHER - M8	141	MTNG. STAND PAD
13	POST LOCKING LEVER	142	SUPPORT ARM - LEFT
14	WASHER - M10	143	SUPPORT ARM - RIGHT
15	SUPPORT POST	144	SHOULDER SUPP. LOCK KNOB
21	FRAME SUPPORT SLIDE	145	SUPP. ARM RETURN SPRING
22	BADMINTON ADAPTER	146	ARM ADJUSTMENT KNOB
23	TENNIS ADAPTER	147	ARM ADJUSTMENT SCREW
24	SUPPORT SLIDE KNOB	148	SHOULDER V-CLAMP
140	MTNG. STAND TOP PLATE		

NOTES