GAMMA®

MOMENTUM ST
USER GUIDE

10 - 15 MINUTE
15
ASSEMBLY

Issue 1 July 2025

SKU MOMST10

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FEATURES:

1. Manual Spring Tension Winder with 11 to 89 lbs Tension Range
2. Patented Roller Guide for Maximum Accuracy and Consistency
3. Six Point “Quick Mount” Racquet Mounting System- Accommodates All Racquets
4. “Quick Action” Dual Action, Rotating, Metal Fixed String Clamps with Diamond Dust Coating
5. Highly durable die cast aluminum machine base with a large padded tool tray and ergonomic design
6. Red touch points and wayfinding decals to help guide users through the stringing process

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ASSEMBLY INSTRUCTIONS

A. FEET INSTALLATION

STEP 1

Turn the base to the side and locate the holes around the outside of the base. Screw the feet into those holes.

B. WINDER BAR INSTALLATION

STEP 1

To install the winder bar, slide over the post on the base and secure it with the two allen set screws.

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

C. TURNTABLE INSTALLATION

STEP 1

To install the turntable, position it over the turntable pin and align the bolts (included in separate bag) with the holes in the flange. Secure them with the included 6mm Allen wrench.

D. SUPPORT POST INSTALLATION

STEP 1

To install the support posts you must first remove the mounting bolt from the mounting plate that sits inside the central cavity of the turntable. There are large holes stamped on the underside of the turntable that allow you to support the mounting plate with your fingers while removing the mounting bolt. After removing the mounting bolt, remove and discard the plastic washers that are installed for shipping purposes.

STEP 2

Place the support post onto the central slot of the turntable. With your fingers placed through the large hole in the underside of the turntable, press the mounting plate against the inside top surface of the turntable while aligning the hole in the support post with the hole in the mounting plate and fix them with the mounting bolt. Repeat procedure to attach the support post on the opposite side of the turntable.

E. CLAMP HEAD INSTALLATION

STEP 1

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.

F. INSTALLING THE TENSIONER

STEP 1

Remove the button head screw and washer located at the end of the tensioner bar with the 3mm hex wrench provided. Slide the tensioner onto the bar, being careful to align the bar with all the bearings and the drive gear with the gear track. Replace the 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 19 for more details about this feature.

YOUR ASSEMBLY IS NOW COMPLETE.

MOUNTING THE FRAME

A. ADJUSTING THE FRAME SUPPORT POSTS

STEP 1

Loosen the lock bolts of the frame support posts and space them apart with the frame support slides separated by the approximate length of the racquet head. Although it is not required, it is good practice to center the support posts on the turntable. Lock one of the posts in position by tightening the lock bolt and position the other post until the frame support slide is positioned near the inside surface of the racquet frame. Securely tighten the lock bolt of the second support post.

CAUTION: ***TO AVOID RACQUET DAMAGE, THE CENTER POSTS SHOULD NOT CONTACT THE RACQUET PRIOR TO LOCKING DOWN THE SUPPORT POSTS.***

B. TIGHTENING THE FRAME SUPPORTS

STEP 1

Tighten the Frame Support Slides by turning the adjustment knob clockwise until snug against the racquet frame and slight resistance is felt.

***CAUTION:** OVERTIGHTENING THE CENTER SUPPORTS WILL STRETCH THE HEAD OF THE RACQUET AND COULD CAUSE RACQUET DAMAGE.*

C. FRAME SHOULDER SUPPORT ADJUSTMENT

STEP 1

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.

D. SECURING THE FRAME SHOULDER CLAMPS

STEP 1

Adjust the position of the shoulder supports so they will contact the frame fully at approximately a right angle. Re-tighten all 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.

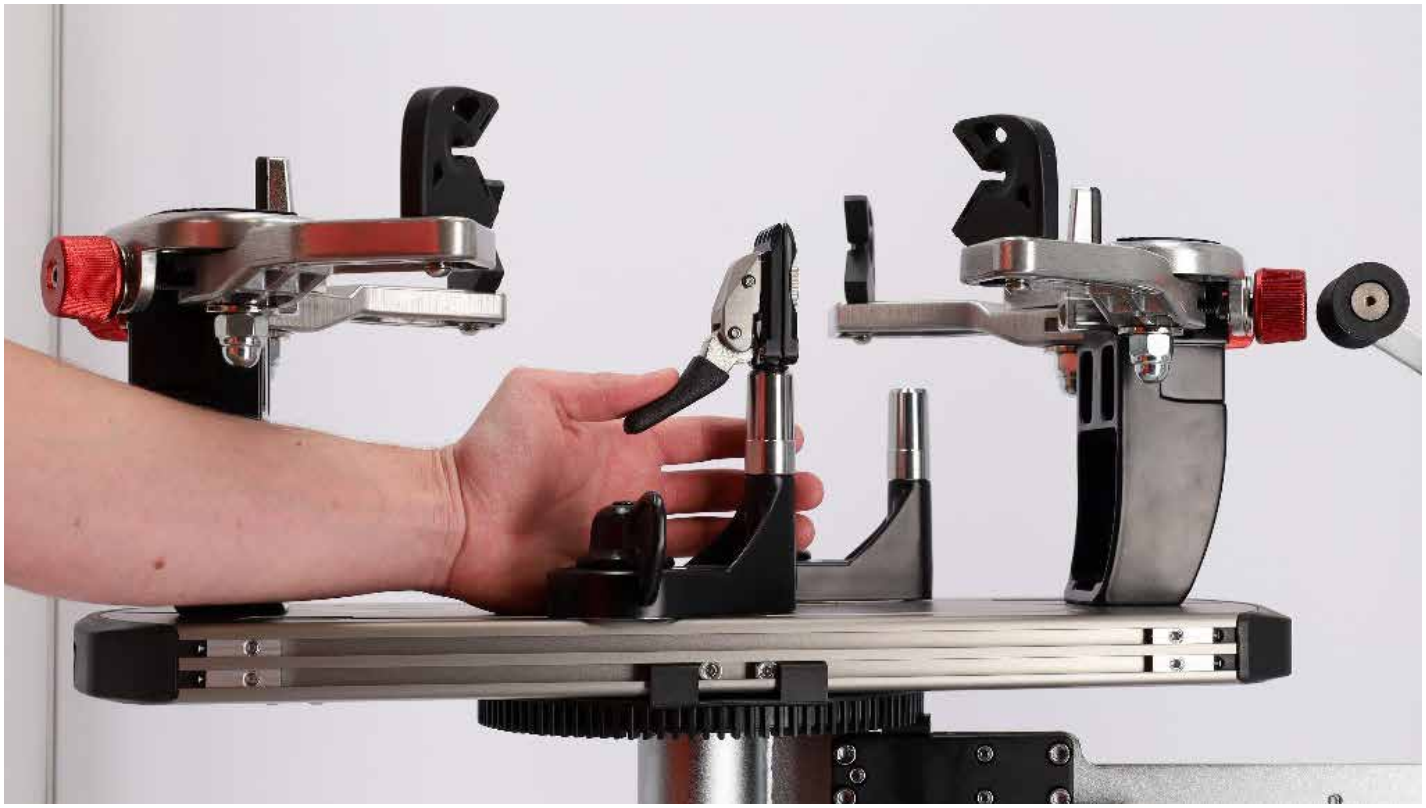
STRINGING THE FRAME

A. STRING CLAMP OPERATION

STEP 1

Quick Action Clamps are of a dual action design where the clamp head and clamp base operate independently of one another. To clamp a string, lift the clamp head and place the string between the jaws and 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.

Note: If the string slips in the string clamp while tensioning, adjust the gap between the clamp jaws per the instructions on pages 28 and 29.

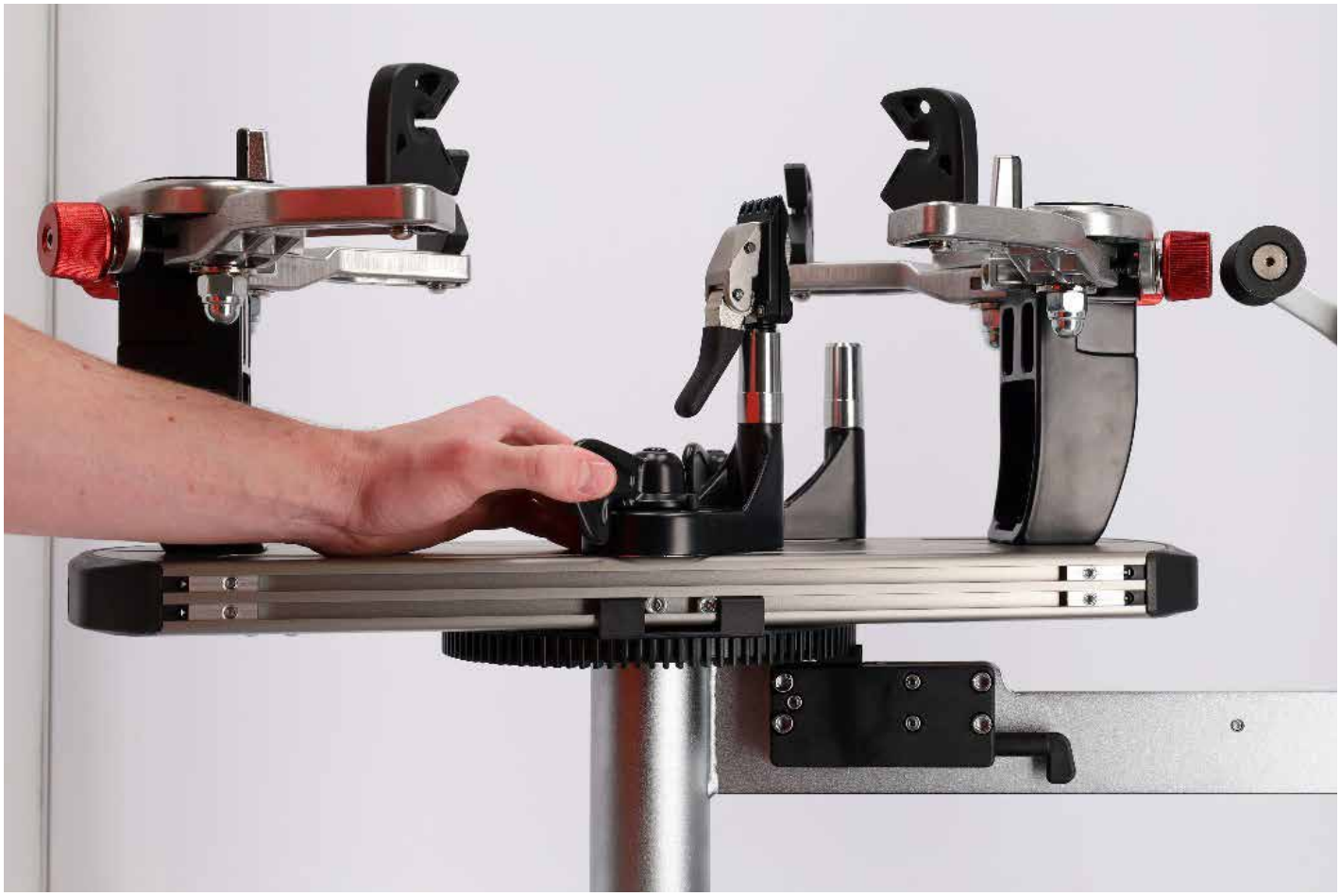


***CAUTION:** EXCESSIVE PRESSURE CAN DAMAGE BOTH THE STRINGS AND THE STRING CLAMP.*

B. CLAMP BASE OPERATION

STEP 1

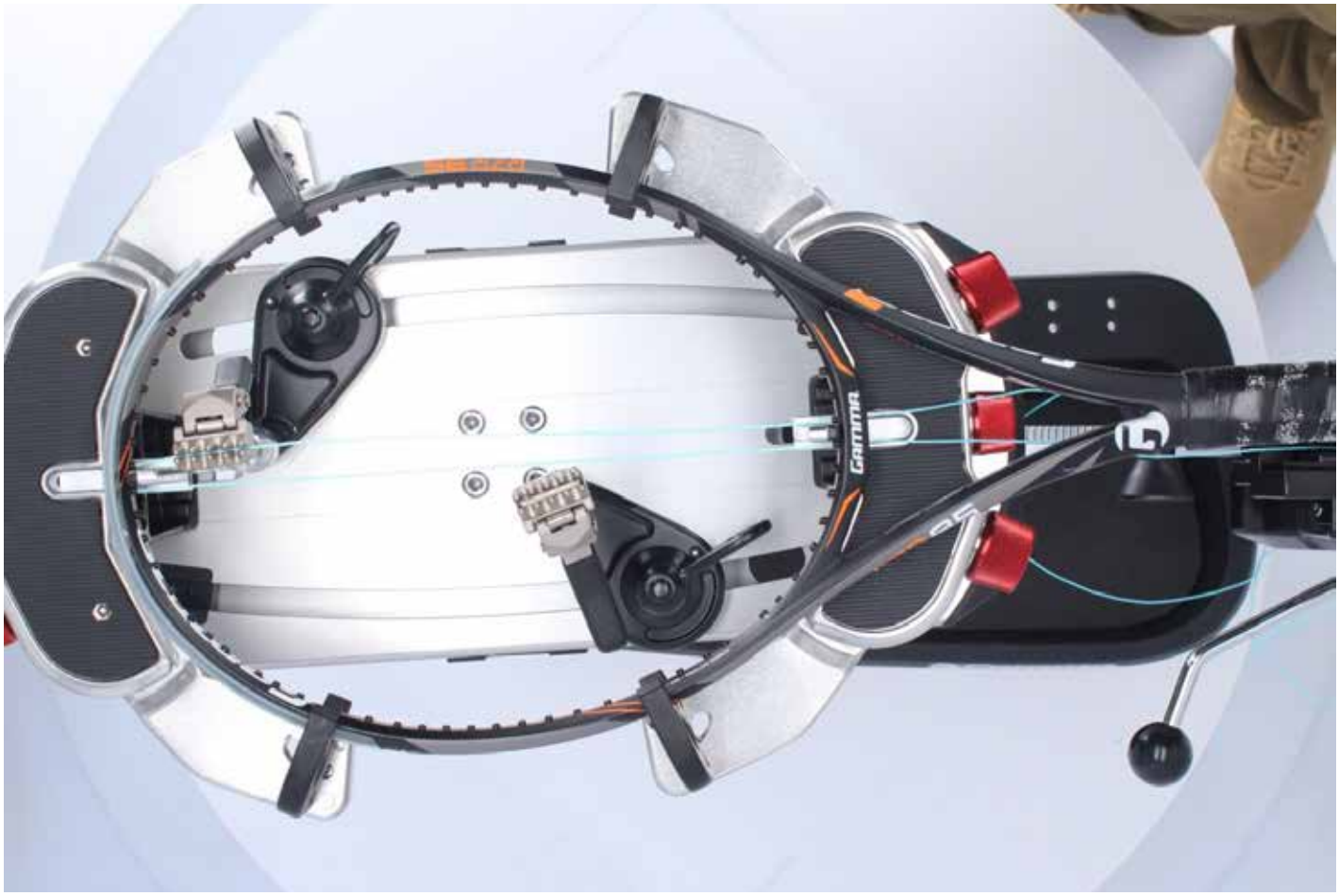
Rotate the Base Locking Lever clockwise to secure the clamp base to the turntable. Reverse the clamping procedure to unlock the string clamp. The Locking Lever is spring loaded to assist the unlocking of the clamp base. The Locking Lever should be tightened enough to prevent clamp base slippage on the turntable, when the desired tension is placed on the string. To go from the loose position to the clamped position and back, generally requires the rotation permitted by the slot in the clamp base. If the rotation is not sufficient to allow smooth operation of, adjust the Clamp Base Locking Nut as outlined on page 30.



C. CLAMPING THE FIRST MAIN STRING

STEP 1

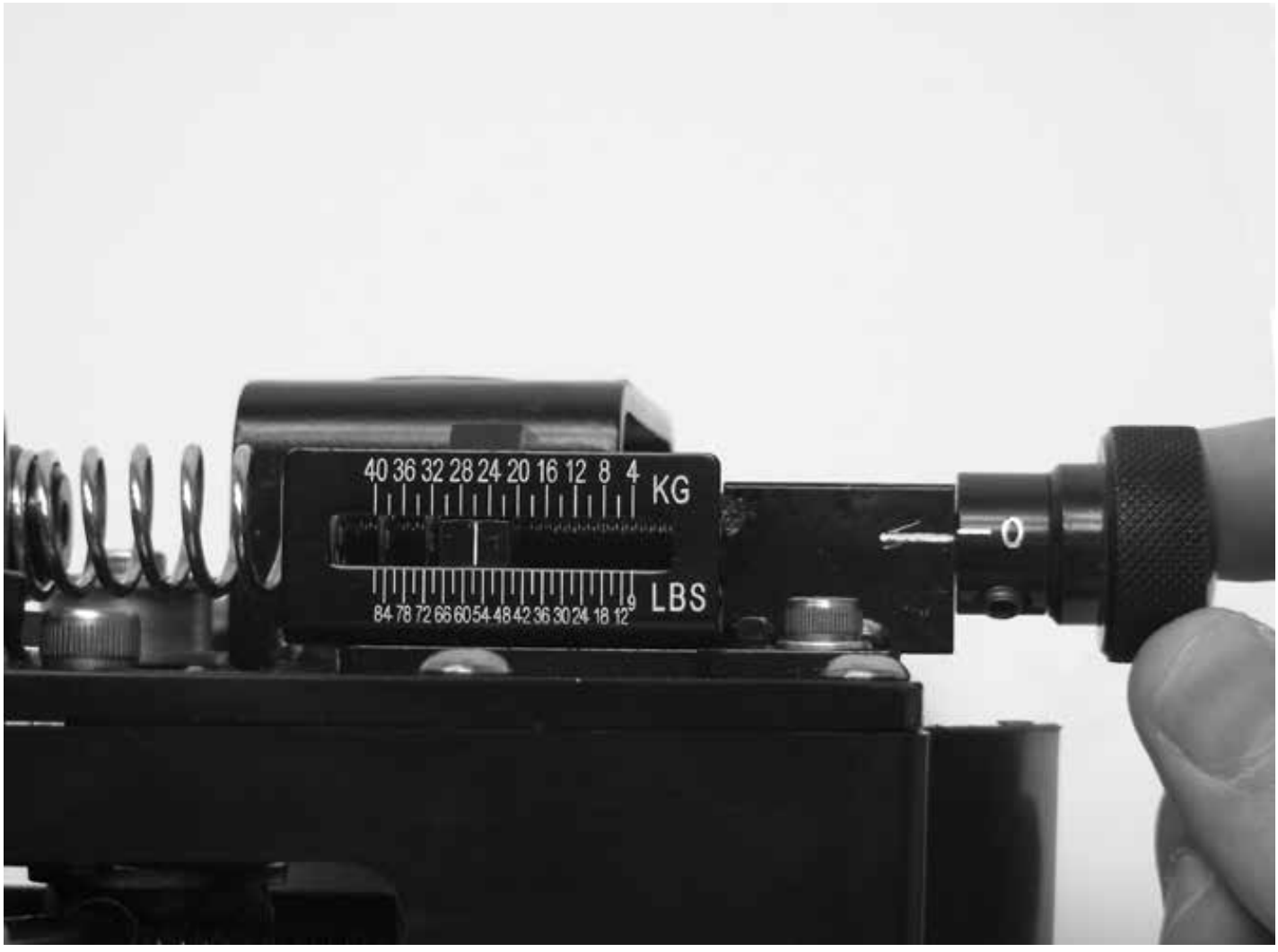
To begin stringing the main strings, thread the two ends of the string through the two center holes at the appropriate end of the frame and continue through the opposite center holes. Thread one end of the string through the adjacent grommet hole and pull excess by hand. Secure one of the strings using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



D. SETTING TENSION

STEP 1

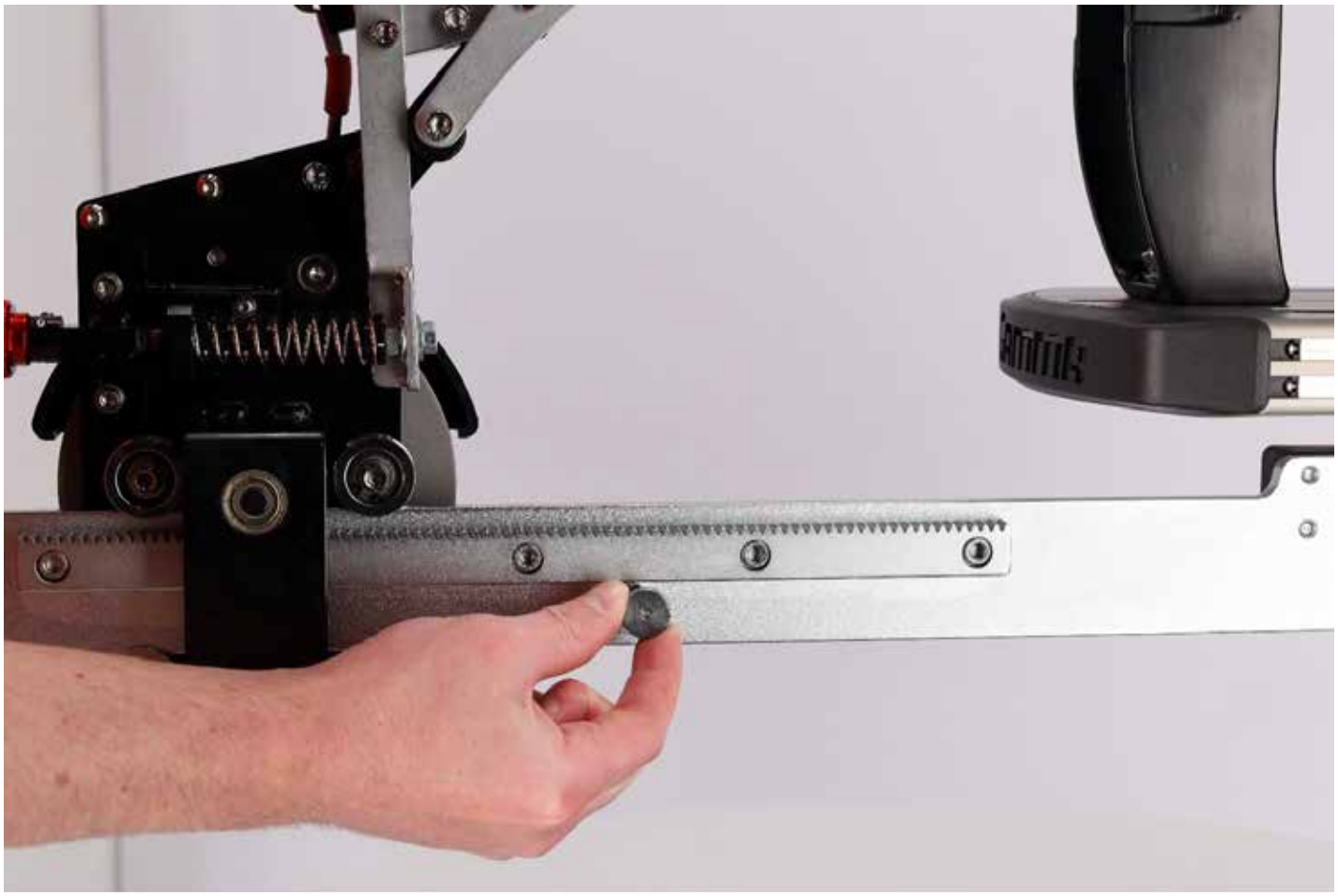
The Momentum-ST utilizes a rotary adjusting knob along with a linear tension scale to indicate the tension setting. The scale is divided into 3 lb. increments and each 1/3 turn of the tension knob changes tension by 1 lb. To set the desired tension, rotate the tension knob and align the mark on the spring 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.



E. TENSIONER TRAVEL STOP

STEP 1

The tensioner bar is equipped with a tensioner travel stop to limit travel of the tensioner along the bar and prevent contact between the tensioner and the racquet mounting system while stringing. The travel stop is located about midpoint along the tensioner bar below the gear track. To disengage the stop, pull and hold the knob, rotate 90 degrees and release. To engage the stop, repeat the above procedure until the travel stop pin protrudes beyond the opposite surface of the tensioner bar.



F. SETTING THE GRIPPER JAW SPACING

STEP 1

The milled string gripper are equipped with a travel limit screw that can be adjusted to increase or decrease the gripper jaw spacing. The screw will come installed from the manufacturer so to allow maximum gripping strength. To increase the jaw spacing and therefor decrease the gripping strength, turn the screw counter clockwise. The adjustment screw can be accessed through a small hole on the back of the right hand side gripper plate.

G. PULLING TENSION

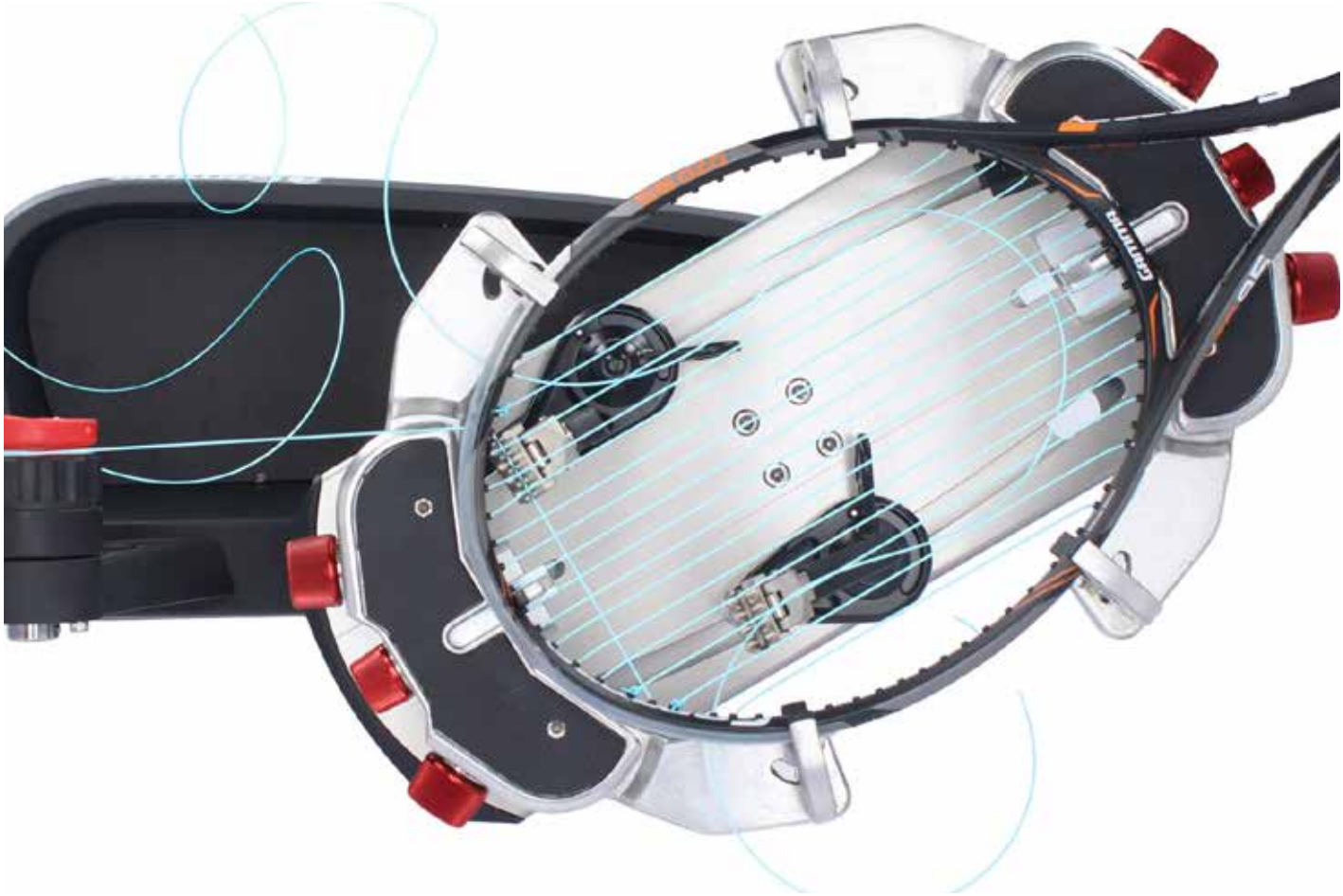
STEP 1

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.

H. WEAVING THE CROSS STRINGS

STEP 1

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.



I. FINISHING THE STRING JOB

STEP 1

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

ADDITIONAL FEATURES

A. LARGE TOOL TRAY

The machine base incorporates ample space to store tool and accessories for easy access during stringing, and for storage when the machine is not in use. A foam pad is included with the machine but not secured. Customers can choose to apply the pad or leave it free.

B. RED TOUCH POINTS

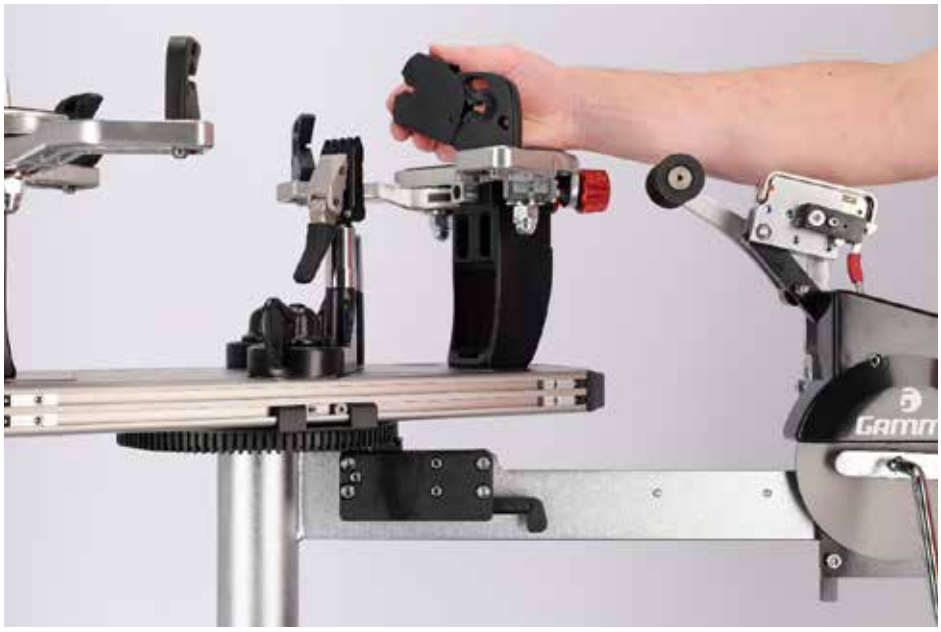
Most of the parts on the machine that stringers will interact with are red in color to help new users learn the stringing process

C. LOCKING THE TURNTABLE

The turntable may be locked in any position. Rotate the lever down to lock the turntable and up to release the turntable.

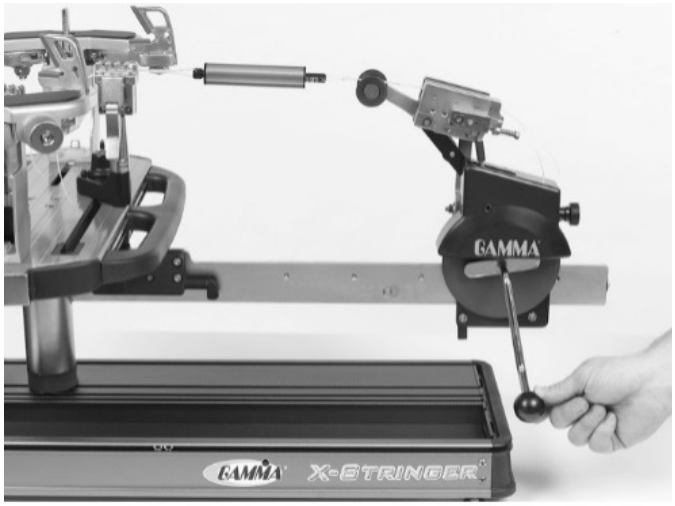
D. BADMINTON SHOULDER SUPPORT PROTECTION PAD INSTALLATION

Slide the badminton shoulder support cover over the shoulder supports. There is no need to remove the tennis shoulder supports.



MAINTENANCE AND ADJUSTMENTS

A. TENSION CALIBRATION PROCEDURE



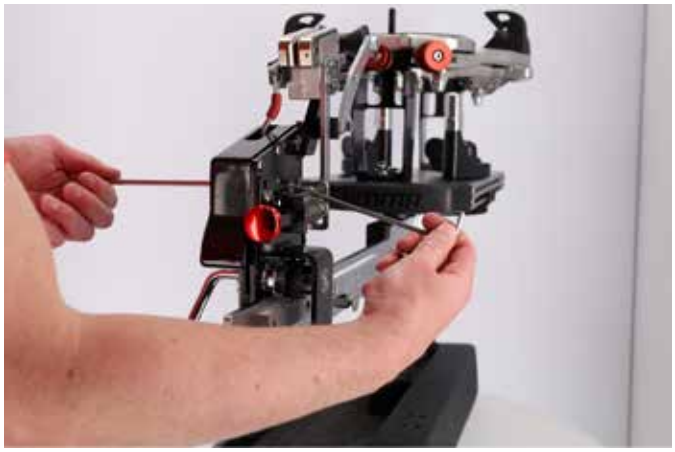
Set the tension to 60 lbs. as indicated by the linear scale and rotary knob. Place the string on one end of a tension calibrator into a string clamp and secure. Place string located on the other end of the calibrator into the string tensioner and apply tension. If the brake lever releases before or after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

Loosen the 1.5 mm locking set screw located on the side of the latching block as shown. The set screw is used to hold the adjustment screw in place.

If the lever releases before 60 lbs., using the supplied L-shaped hex wrench, 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. Tighten locking set screw when finished.

B. ADJUSTING THE TENSIONER BRAKE

After stringing many racquets, the brake of the tensioner may need to be adjusted. With the brake lever engaged in the latch, insert the 5mm allen wrench into the bolt located at the base of the brake lever. It can be accessed through the hole on the face of the tensioner cover (above the 'GAMMA' logo).
Note: The tensioner cover does not need to be removed for the adjustment.



While holding the 5mm brake lever adjustment bolt , loosen the hex bolt located on the back side of the tensioner frame with the 4 mm allen wrench.
Note: The hex bolt should only be loosened and must not be completely removed.

To tighten the braking mechanism, turn the 5mm brake screw counter clockwise by about 1/8 turn. Re-tighten the allen set screw 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, repeat steps above until properly adjusted.

C. ADJUSTING THE STRING CLAMP JAW SPACING

STEP 1

The string clamps will need minor adjustments according to what string type, construction, and gauge you are using. To adjust the gap (clamping pressure) between the clamp jaws, insert 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 squeezing the clamp jaws together by hand while turning the Adjustment Knob, in the clockwise direction. If the clamp leaves impressions or damages the string, it may be excessively tight and should be adjusted by turning the Adjustment Knob counter-clockwise to open the gap between the jaws.

NOTE: Due to the bearings used in the Clamp Lever the action of the Clamp Lever is very light making it easy to apply excessive clamping pressure. Clamps that are set too tight can damage the string as well as the string clamp jaws.

STEP 2

The clamp jaws should be cleaned periodically to be free from dirt, oil, and any string coating residue to grip properly. Knife sharpening stones are excellent for removing build-up on the diamond coated surfaces and are available.

D. CLAMP BASE LOCKING NUT ADJUSTMENT

STEP 1

In the event the Locking Lever rotation is insufficient to ensure smooth operation of the clamp base, very minor adjustments to the Clamp Base Locking Nut can be made with the supplied 17mm socket. Tighten or loosen the locking nut in very small increments to provide more clamping pressure or running clearance as needed.

E. QUICK ACTION CLAMP BASE REMOVAL

STEP 1

Quick Action clamp bases can be removed from the turntable for maintenance or cleaning by removing clamp stops located at the end of the slots in the turntable. To remove the clamp stop, remove the two screws holding the clamp stop in place from the underside of the turntable. Lift the clamp stop out of the slot, slide the clamp base to the end of the slot and lift it out. Replace the clamp base and clamp stop in reverse order.

C. TROUBLE SHOOTING TIPS

PROBLEM: String slips in clamps.

SOLUTION:

1. Adjust gap between clamp jaws.
2. Clean clamp jaws with alcohol or Gamma Cleaning Stone.

PROBLEM: String clamp base slips on turntable.

SOLUTION:

1. Clean bottom of clamp & top of turntable with alcohol.
2. Adjust clamp base locking nut.

PROBLEM: Tensioner moves towards racquet after brake lever is released.

SOLUTION:

1. Clean tensioner disc brake.
2. Adjust tensioner brake

PROBLEM: String tension too tight or too loose.

SOLUTION:

1. Check tension using a tension calibrator, adjust machine calibration if necessary.

ADDITIONAL PROBLEMS?

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D. 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 String Clamps and String Gripper is recommended. Knife sharpening stones work well for cleaning the diamond coated string clamping surfaces. Cleaning with a solvent such as isopropyl alcohol and a mild abrasive tool such as a toothbrush also works well to remove oily or greasy build up.

PARTS LIST

PART NUMBER – PART DESCRIPTION

5	RUBBER FOOT
6A	CAP SCREW- M8x30
8A	SET SCREW
9	WASHER- M8
14	WASHER- M10
21A	FRAME SUPPORT SLIDE
436	TENSIONER ASSEMBLY
105	RETAINER SCREW
133	FRAME SUPP SLIDE SCREW
140	MTNG STAND TOP PLATE
141	MTNG STAND TOP PAD
144B	SHLDER SUPP LOCK KNOB
146	SUPP ARM ADJUST KNOB
203	TT BOLTS*
270	SUPP MOUNTING PLATE
440	DIE CAST BASE
445	TOOL TRAY PAD
446	TURNTABLE END CAP
320	BRAKE RING
327	TT PIN
336	WINDER BAR
337	BRAKE BOX
356	QM ARM (LONG) RIGHT
357	QM ARM (LONG) LEFT
358	QM STAND (BLK)
360	TURNTABLE TT7
371	SHOULDER V-MNT (BLK)
MDCSC13	UNIV DC STRING CLAMP
MQAC12	QA CLAMP BASE TALL TT7/TT8

TOOLS AND ACCESSORIES

PART NUMBER – TOOL DESCRIPTION

71	6 MM T-HANDLE WRENCH
98	10 MM WRENCH*
109	NEEDLE NOSE PLIERS*
110	BENT NOSE PLIERS*
171	DIAGONAL CUTTERS*
196	17MM SOCKET*
251	HEX WRENCH SET*
MA	STRINGER'S AWL*
MFSPP11	FRAME SUPP PADS SHORT BADMINTON (SB) SQUASH (SQ) TENNIS (T) TAPERED BADMINTON (B)
MMSPP13	V-MNT SHLDER SUPP PADS
MBMSP11	BADM V-MNT COVER
MPSA	PATHFINDER AWL*

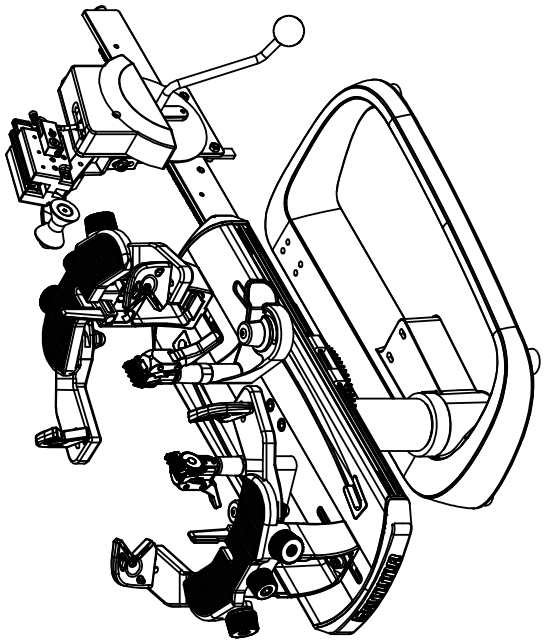
* NOT SHOWN IN PARTS DIAGRAM (Page 35)

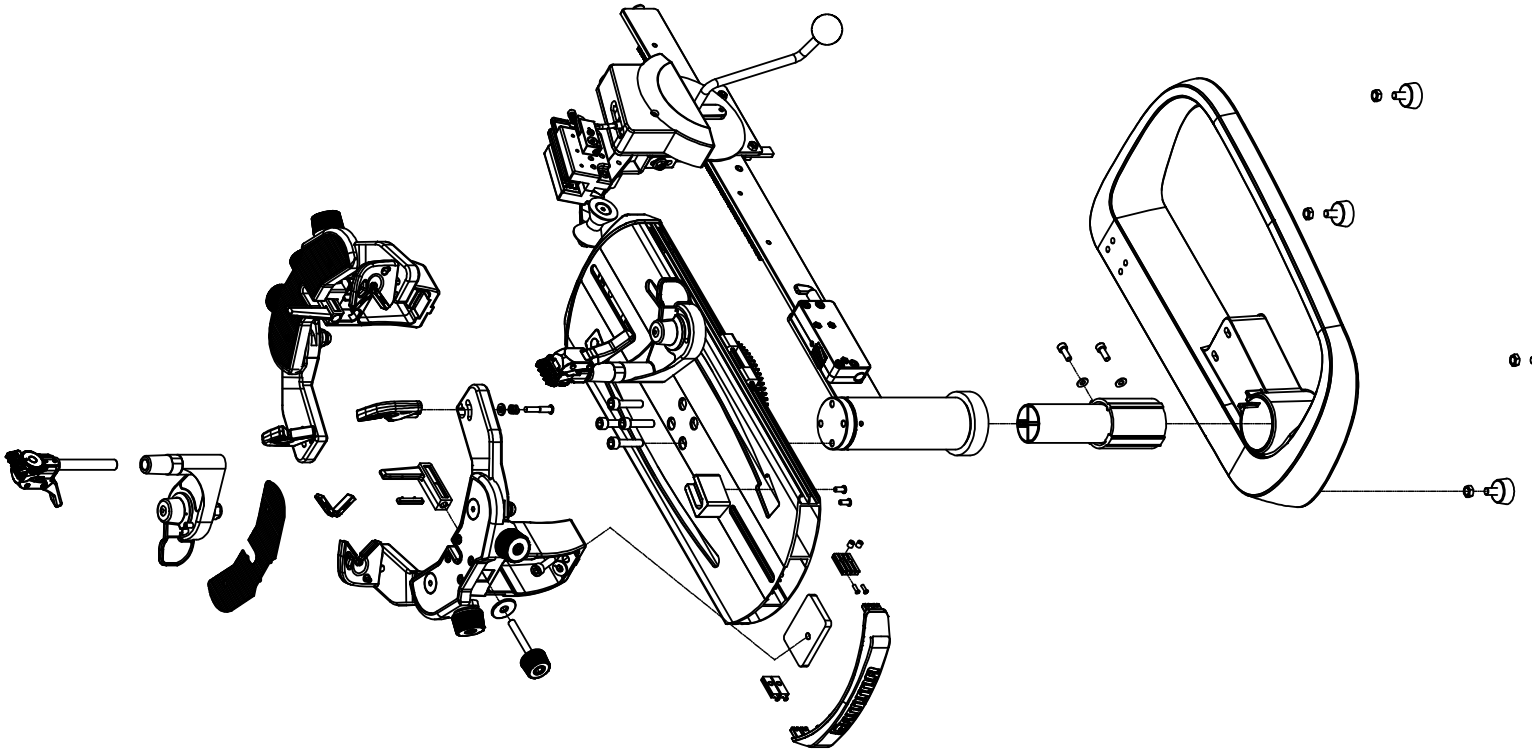
OPTIONAL TOOLS & ACCESSORIES

PART NUMBER – TOOL DESCRIPTION

MBFC	BADM FLOATING CLAMP
MBFS-11	BADM HEAD FRAME SUPP
MDCSC	BADM FIXED CLAMP
MGSMC	MACHINE COVER
MPG	STARTING CLAMP
MPS	CLEANING STONE
MPXFS	FLOOR STAND
MTC	CALIBRATOR

PARTS DIAGRAM





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