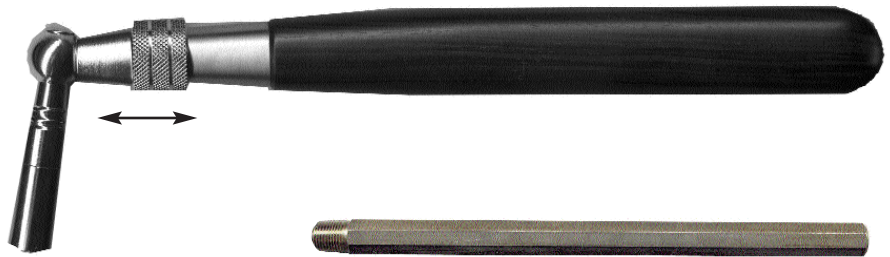


TUNING HAMMERS

WATANABE EXTENSION TUNING HAMMER

Professional Watanabe extension tuning hammer features hexagon shaft for added strength and durability. Well-balanced rosewood handle. 11½" in length. Comes with standard #2 star tip and 1¼" 15° removable head. Accepts most other brands of heads and tips.

#TH-1E Professional Extension Tuning Hammer



#TH-1E/S Replacement Hexagonal Shaft

WATANABE STATIONARY TUNING HAMMER

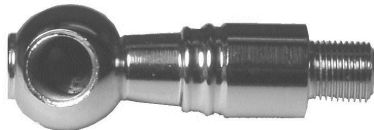
Professional Watanabe tuning hammer with hardwood handle. 11½" in length. Comes with standard #2 star tip & 1¼" 15° removable head. Compatible with most other brands of heads and tips.

#TH-1 Professional Tuning Hammer



WATANABE HEADS & TIPS

Watanabe tuning hammer heads and tips provide a positive fit on the tuning pin.



1¼" long (not including threaded portion).
#HT-JM Medium 15° Head



1⅜" long (not including threaded portion).
#HT-JS Short 15° Head



1" long tips

#HT-J1 No. 1 Star Tip
#HT-J2 No. 2 Star Tip
#HT-J3 No. 3 Star Tip



2-1/2" long tips

#HT-J2X No. 2 Star Tip, Long
#HT-J3X No. 3 Star Tip, Long

TIP WRENCH

For easy removal or tightening of star tips on any tuning hammer. Hardened tool steel will not damage hammer tips. Features comfortable black plastic handle. Overall length 7¼".

#TW-2 Tip Wrench



TUNING HAMMERS

JAHN EXTENSION TUNING HAMMER

Uniquely designed head features a web-shaped arch that spans the inner angle of the head, providing unequalled strength & stability. Hardwood handle, hexagonal inner shaft. With 1 1/4" #2 star tip and choice of 15° or 5° head. Overall length 11". Exceptionally solid fit.



Arch design eliminates a threaded joint at the head, giving positive feedback to the tuner.

#TH-8 Jahn Extension Tuning Hammer

Kit includes TH-8 hammer with 1 1/4" long #2 star tip, 1 1/4" long #3 star tip, a 1 5/8" long #2 star tip, and tip wrench.

#TH-8K Jahn Extension Tuning Hammer Kit

JAHN HEADS & TIPS



1-1/4" long tips

#TH-8S2 No. 2 Star Tip
#TH-8S3 No. 3 Star Tip

(Lengths do not include threaded portion.)



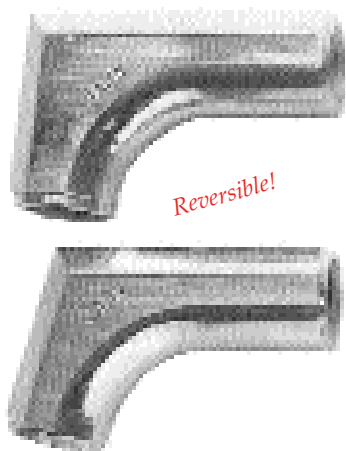
1-5/8" long tips

#TH-8S2L No. 2 Star Tip
#TH-8S3L No. 3 Star Tip
#TH-8S2N No. 2 Narrow Wall



2-3/4" long tips

#TH-8S2X No. 2 Star Tip
#TH-8S3X No. 3 Star Tip



REVERSIBLE HEADS

Unique reversible arched heads provide increased strength and stability. Design eliminates a threaded joint at the head, giving positive feedback to the tuner. Both ends are threaded the same, so that the head can be reversed. This special feature allows you a choice of lengths. Measures 1 3/4" x 1".

#TH-8H5 5° Jahn Head
#TH-8H15 15° Jahn Head



#TH-8RS Replacement Hexagonal Shaft

TUNING HAMMERS



#TH-7B Jahn Ball-Handle Extension Tuning Hammer

JAHN BALL-HANDLE TUNING HAMMER

With 1/4" #2 star tip and choice of 15° or 5° head. Overall length 10 3/4".

Extendable, with hexagonal inner shaft. Ball-shaped hardwood handle offers more comfortable grip.

Kit includes TH-7B hammer with 1/4" long #2 star tip, 1/4" long #3 star tip, a 1 5/8" long #2 star tip, and tip wrench.

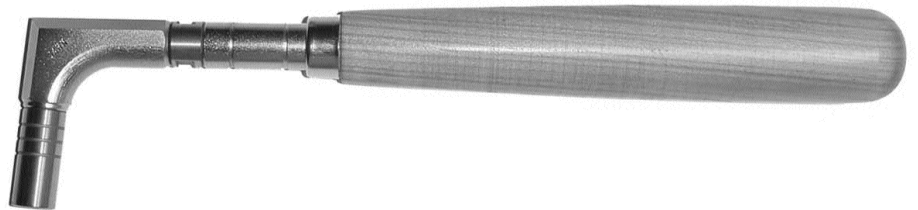
#TH-7BK Jahn Ball-Handle Extension Tuning Hammer Kit

JAHN LIGHTWEIGHT TUNING HAMMER

Lightweight, stationary hardwood handle. With 1/4" #2 star tip and choice of 15° or 5° head. 11" overall.

#TH-6

Jahn Lightweight Tuning Hammer



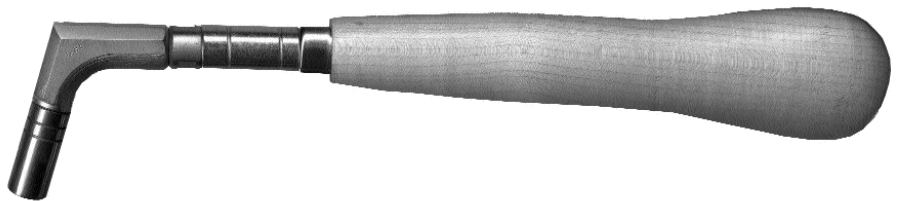
Kit includes TH-6 hammer with 1/4" long #2 star tip, 1/4" long #3 star tip, a 1 5/8" long #2 star tip, and tip wrench.

#TH-6K Jahn Lightweight Tuning Hammer Kit

JAHN PEAR-HANDLE TUNING HAMMER

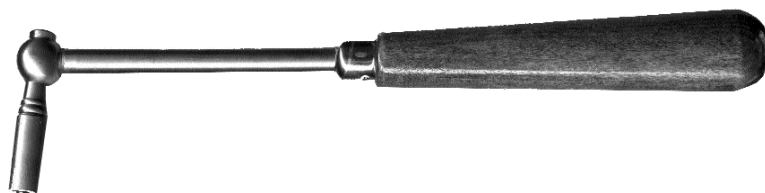
Pear-shaped hardwood handle. Lightweight, stationary tuning hammer. With 1/4" #2 star tip and choice of 15° or 5° head. Overall length 11".

#TH-5P Jahn Pear-Handle Tuning Hammer



Kit includes TH-5P hammer with 1/4" long #2 star tip, 1/4" long #3 star tip, a 1 5/8" long #2 star tip, and tip wrench.

#TH-5PK Jahn Pear-Handle Tuning Hammer Kit



ECONOMY TUNING HAMMER

Recommended for occasional use by students or amateurs. Single piece removable #2 star head is 2 1/2" long. Hardwood handle.

#TH-3

Economy Tuning Hammer

#TH-3X

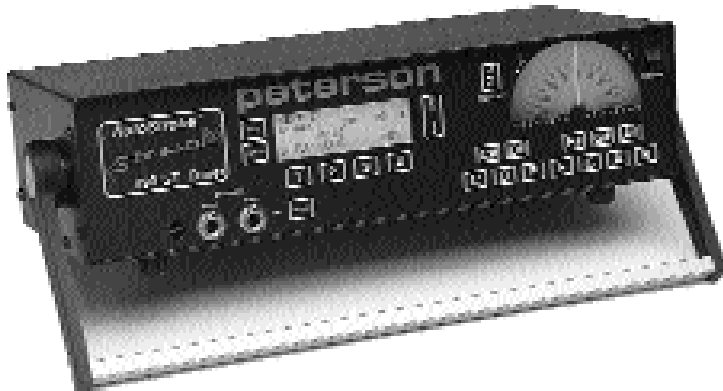
Replacement head/tip only

ELECTRONIC TUNERS

PETERSON AUTOSTROBE 490-ST STRETCH TUNER

- * Automatic note selection.
- * Shifted octave display for extreme ranges.
- * Accuracy to 1/10 of a cent.
- * Digital pitch offset control.
- * Adjustable Concert A in 1 Hz increments, from 350 Hz to 550 Hz.
- * Preset (10) & Custom Temperaments.
- * Preset (8) & Custom Stretch Tables (up to 31).
- * Optional Dual Footswitch for hands-free note and octave increments.
- * Built-in microphone.
- * 1/4" jack.
- * AC operation.
- * 13.4" x 3.5" x 6.375"
- * Weighs 8 lbs.
- * Carrying Case included.

#490-ST Peterson 490-ST Stretch Tuner



Peterson Tuners come with a 1-year parts and labor warranty.

The economical tuners below are suggested for use by amateurs, or for use on stringed instruments.

VIRTUAL STROBE TUNER

- Accurate to 1/10 cent.
- Automatic or manual selection.
- Selectable historical temperaments.
- Stores custom user settings.
- Weight 1½ lbs.
- Built-in microphone.
- Transposition to all keys.
- Adjustable Concert A reference in 0.5 Hz increments from 433 Hz to 477 Hz.
- 9-octave range of line-out reference tones.
- In and thru 1/4" jacks.
- Rubber covering for protection & better grip.
- Backlit display. (Light can be turned off.)
- 3 AA batteries or 3v AC adapter (included).
- Measures 7½" high x 4½" wide x 2½" deep.



#VS-1 Peterson Virtual Strobe Tuner

SEIKO ST-1100 TUNER



Selectable Auto-Tuning, Manual Tuning, & Sound Generation

- Tuning range A0 - B7.
- Wide concert pitch including Baroque 415 Hz, 438 - 446 Hz.
- 5-octave sound generation (C2 - B6).
- Lumi-Brite VU-meter.
- Built-in microphone.
- 9v battery, input/output jacks.
- 5½" x 3¾" x 1".

#ST-1100 Seiko ST-1100 Tuner

SEIKO ST-757 TUNER



Auto-Tuning, Manual Tuning

- Tuning range A0-C8.
- 435 Hz - 446 Hz.
- Analog/Digital combination.
- LCD display.
- Built-in microphone.
- 2 AAA batteries.
- Input/output jacks.
- 3¼" x 3" x 5/8".

#ST-757 Seiko ST-757 Tuner

ELECTRONIC TUNERS

SANDERSON ACCU-TUNER III

- * FAC 88-Note Stretch Calculator sets note & cents for entire piano automatically with just 3 measurements.
- * Auto-Stepping Filter Circuit steps automatically to the next note.
- * Double Octave Beat adjustment lets you create the perfect amount of stretch.
- * Pitch-Raise Calculator gives *accurate* pitch raises in 20 minutes or less.
- * Rotating LED display instantly shows tuning error to a resolution of ± 0.05 cents.
- * Store up to 198 of your own tunings, with serial numbers.
- * Memory that can be written and overwritten without limit.
- * Includes 165 generic tunings.
- * Tunings can be calculated with early music temperaments.
- * Sealed Long-life Keyboard.
- * Foot pedal steps up or down from note to note.
- * Battery or AC operation with charger.
- * Auto-shutdown.
- * PTG Tuning Exam program included.
- * Built-in MIDI ports.
- * Small: 6" wide, 3" high and 4½" deep.
- * Weighs only 1 lb.

Comes complete with battery charger, foot switch, & manual.

SATIII Sanderson Accu-Tuner III

SANDERSON ACCU-TUNER II

FAC 88-Note Stretch Calculator. Includes 60 memories, expandable to 206. Comes with 20 generic tunings. Includes battery charger, foot switch, & manual. Built-in MIDI. Measures 7½" wide x 4" high x 5" deep, and weighs 2 lbs.

SATII Sanderson Accu-Tuner II

SANDERSON ACCU-TUNER

FAC 88-Note Stretch Calculator. Includes 40 memories. Comes with 20 generic tunings. Battery charger, foot switch, and manual. Does not include MIDI. Measures 7½" wide x 4" high x 5" deep, and weighs 2 lbs.

SAT Sanderson Accu-Tuner

Probably the single most important investment you can make in your service work.



Sanderson Accu-Tuner III

ACCESSORIES

Magnetic pickup attaches to the plate and plugs directly into MAG IN jack. Automatically disables the internal microphone. Essential when tuning in noisy environment.

MAG-P Magnetic Pickup

Use instead of the footswitch to change notes. Attaches easily to tuning hammer with Velcro. Includes coil cord.

TH-SW Tuning Hammer Thumbswitch

Sanderson Accu-Tuners are covered by a 1-year parts & labor warranty.



SAT-CM

Attractive, sturdy cases have custom compartment to store your SAT III, plus additional space. Two key-lock closures and 2 safety hinges. Removable shoulder strap.

SAT-CI Mini Aluminum Case 13" x 7½" x 4"
 # SAT-CS Small Aluminum Case 13" x 10¼" x 5½"
 # SAT-CM Med. Aluminum Case 15¾" x 10¼" x 7"
 # SAT-CL Large Aluminum Case 18¾" x 11" x 6¼"

TUNING FORKS

SANDERSON ACCU-FORK II

Like 4 tuning forks in one! The SAF II is guaranteed accurate at room temperature to within 1/2 of 1 cent at A-440.

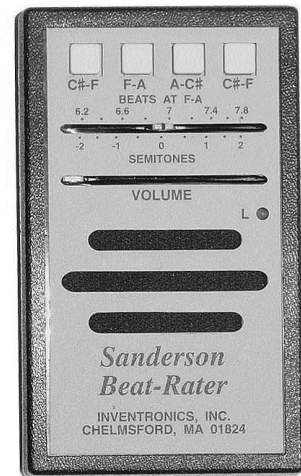
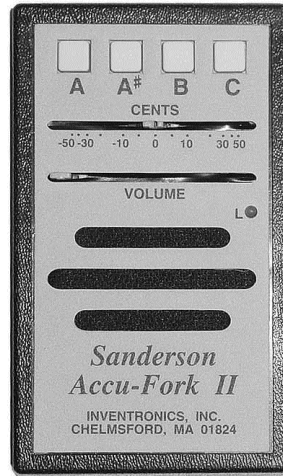
Compact, lightweight. Produces pleasant overtone-rich tone on 4 notes: A4, A#4, B4, & C5. Features a 50-cents flat or sharp scale to allow measuring pitch of a piano. Perfect for pitch raising. (A touch-scale is available for sight-impaired technicians.)

#SAFII Sanderson Accu-Fork II

SANDERSON BEAT RATER

Clicks beat rates for all major thirds in temperament region: from B2-D#3 up to D#4-G4. Four pushbuttons set beats of 4 contiguous major thirds. Beat rates can be adjusted. 4 1/2" x 2 5/8" x 15/16".

#SBR Sanderson Beat Rater

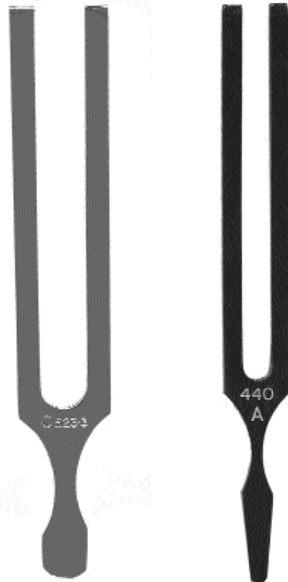


John Walker TUNING FORKS Sheffield Steel

HEAVY DUTY POLISHED CHROME TUNING FORKS

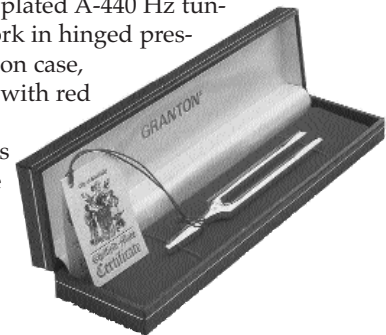
Premium quality Sheffield steel tuning fork with polished chrome finish. Heavy duty construction provides a clearer timbre, more sustained tone, and less variance. 5 1/2" overall. Includes plastic case.

#TF-A440HD A-440 Hz Heavy Fork
#TF-C523HD C-523.3 Hz Heavy Fork



GOLD PLATED A FORK

Gold-plated A-440 Hz tuning fork in hinged presentation case, lined with red felt. Makes a nice gift.



#TF-A440GP Gold Plated A Fork

BLUED TUNING FORKS

Standard 5 1/2" blued steel tuning fork in plastic case.

#TF-A440 A-440 Hz Blued Fork
#TF-A442 A-442 Hz Blued Fork
#TF-C523 C-523.3 Hz Blued Fork

CHROMATIC SET OF 13 FORKS

Range from C-261.6 Hz. to C-523.3 Hz, by half-steps. Includes hinged presentation case with formed interior.

#TF-13S Chromatic Set of 13 Forks

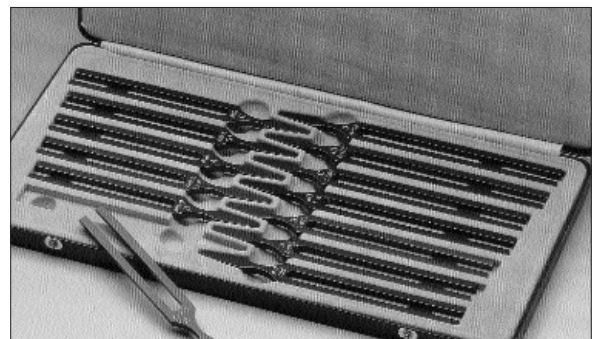


SET of 4 A-FORKS

Set of 4 Blued A-Forks in a black vinyl case. Includes these A's:

- A-415 Hz (Baroque)
- A-435 Hz. (Continental)
- A-440 Hz (Standard)
- A-444 Hz. (Medium)

#TF-4XA Set of 4 A Forks
(Not sold individually.)



TEMPERAMENT STRIP

High quality felt temperament strip. 1" x 50".

#TS-1 Temperament Strip



RUBBER MUTES

Black rubber wedges.

#MR-1M Rubber Mute
4 1/4" x 1/2"

#MR-1L Rubber Mute
5 3/4" x 1/2"

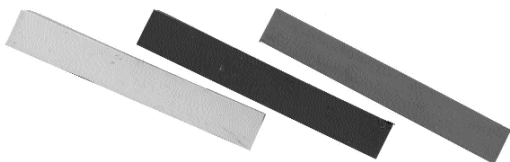
#MR-1S Rubber Mute
2 3/4" x 3/8"



COLORED RUBBER MUTES

Rubber wedges in bright colors – easy to see! Colors include yellow, blue, and red, and will be assorted unless otherwise specified. 4 1/4" x 1/2".

#MR-1C Colored Rubber Mute



RUBBER MUTE WITH WIRE



Black rubber mutes with 7" long wire handles that make tuning uprights easier. Square wedge measures approximately 2 3/4" x 3/8".

#MR-1W Rubber Mute with Wire (Wedge)

ROUND RUBBER MUTE WITH WIRE

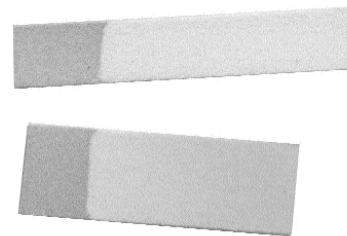


Special round rubber mute formed around 7" wire handle. Slim round shape reduces bulkiness to allow for easier fit in tight places. Rubber mute portion is approximately 3" x 3/8".

#MR-1R Round Rubber Mute with Wire

FELT WEDGES

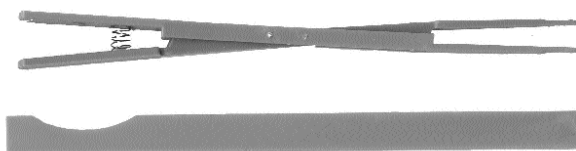
Very effective felt wedge mutes, especially useful in bass section where rubber mutes can sometimes discolor copper windings.



#MF-2M Felt Mute 4 3/8" x 3/4"

#MF-2L Felt Mute 3 3/4" x 1 1/4"

PAPPS SPRING MUTE



For fast treble muting. Special spring design gives quick contact and release. Long-lasting molded nylon, about 8" long. Comes with protective plastic case.

#MP-1 Papps Spring Mute

WOODEN MUTE

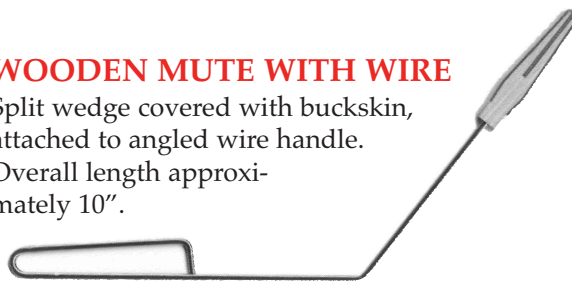


Very effective wood stick mute with buckskin. Double-ended with one split wedge and one regular wedge. 9" in length.

#MJ-2 Double-Ended Wooden Mute

WOODEN MUTE WITH WIRE

Split wedge covered with buckskin, attached to angled wire handle. Overall length approximately 10".



#MJ-1 Wooden Mute with Wire

TOOLS

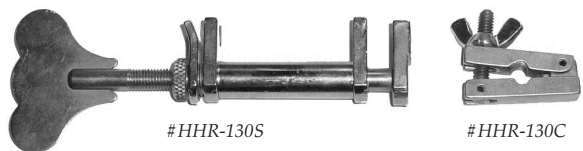
STRAIGHT BALANCE HOLE REAMERS



Straight fluted reamers for easing key balance holes from key bottom. Will not over-ease hole. Use with our #PV-93 Pin Vise (page D-15).

PART #	DIAMETER	FOR PIN SIZE
#KCS-1475	.1475" Reamer	.145" / .146"
#KCS-1630	.1630" Reamer	.160"
#KCS-1395	.1395" Reamer	.137"

HAMMER HEAD & BUTT EXTRACTOR

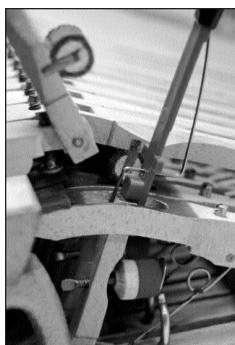


For removing either hammer head or butt from shank without damage. Upright extractor for shanks greater than 3/4" in length. Spinet extractor for shanks 2/4" or shorter. If the shank is broken, you must use the clamp in conjunction with either extractor.

- #HHR-130X Upright Hammer Extractor
- #HHR-130S Spinet Hammer Extractor
- #HHR-130C Clamp for Hammer Extractor

GRAND JACK ALIGNMENT TOOL

Jack alignment you can see. Simply adjust the jack until the small side wing on the tool meets the back of the adjacent knuckle core. Really simplifies the task. Approximately 2 7/8" in length.



- #NL-100 NuckLJac Tool

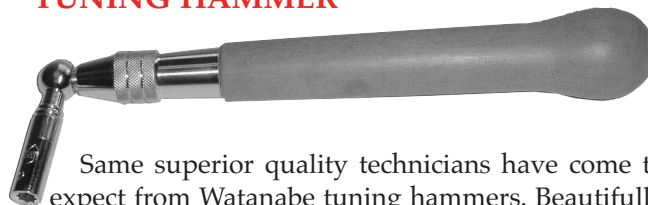
VIENNESE ACTION PLIERS



Reverse pliers for adjusting friction between the kapsel fork and hammershank axel pins in Viennese fortepiano actions.

- #VKP-10 Viennese Action Pliers

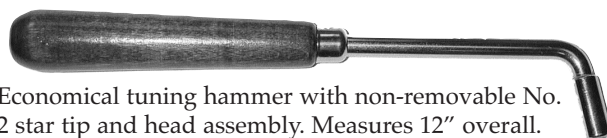
WATANABE BALL-HANDLE TUNING HAMMER



Same superior quality technicians have come to expect from Watanabe tuning hammers. Beautifully finished hardwood handle with ball end for increased comfort. 11" in length. Includes No. 2 star tip.

- #TH-2B Watanabe Ball-Handle Tuning Hammer

GOOSENECK TUNING HAMMER



Economical tuning hammer with non-removable No. 2 star tip and head assembly. Measures 12" overall.

- #TH-3G5 Gooseneck Tuning Hammer

T-HANDLE TUNING HAMMER



Rugged T-handle with non-removable square tip and head assembly. 6" long.

- #TH-12T T-Handle Tuning Hammer

CORK INSERTING TOOL



Lightweight tool for inserting bridle strap corks into catcher hole. 4" in length. For combination handle.

- #CK-141 Bridle Cork Inserter

JACK SPRING HOLE REAMER



Serrated end quickly removes dried glue from jack spring hole. 4 7/8" in length.

- #JR-127 Jack Spring Hole Reamer

PERMA-GRIT CHAMFER BIT



Rough-grit tungsten carbide abrasive bit for chamfering holes in wood, such as capstan holes. Will not chatter.

- #F-15LC Perma-Grit Chamfer Bit