Guide to Building
A Basic Tool Kit

Tool Buying Framework

1. Buy expensive tools after you sell the job (tuning lever excluded).

2. Slow is fast. Using the right tool slowly will always go faster than breaking a part and having to do extra repairs.

3. Ask for personal recommendations from someone before buying a tool not on this list.

Contents

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Tuning & Pitch Tools

Types of common tuning levers

Your tuning lever is your most important tool. Invest in the best lever you can afford and know that different types of levers have different benefits: carbon fiber levers have the least amount of flex, impact levers are easier on your shoulders, and ‘C’ levers are ergonomically better and require less effort from the technician.

Reyburn tuning levers

The Reyburn Rigid carbon fiber lever is a great lever that has low flex, is lightweight, and comes in a variety of finishes, ball sizes, and woods.

Fujan tuning levers

The Fujan carbon fiber lever is a popular lever. It comes in a variety of options, extensions, tuning head angles, etc. In general, lower degree heads (less than 10 degrees) are better for tuning stability but sometimes the piano’s plate does not allow this so if this is your only lever having a 10-15 degree head will be more accommodating.

Charles Faulk tuning levers

Charles Faulk tuning levers are carbon fiber and steel blends with artistic handles and balled ends. They are popular levers that ergonomically fit your hand and have a strong following from technicians.

88 On Pitch Smart tuning levers

These new levers are gaining traction and are a blend of carbon fiber and aerospace grade steel, that come with quick release tuning tips.

Levitan classic ‘L’ tuning lever

The Levitan ‘L’ lever has a tubular titanium shaft that extends all the way through the handle. It is lightweight, has low flex, and fits into small places for pianos with tight pinfields. This is a great lever to have as a backup lever (and also for your stringing kit because it is small, lightweight, and versatile).

The Reyburn ‘Upright Impact’ tuning lever

Impact levers in general are popular with people who want the process of tuning to be less stressful on their shoulder. Pictured on the left is a ‘Reyburn Upright Impact’ lever but Reyburn also makes an impact lever for Grands.

PRO TIP: The technique developed on an impact lever is totally different than the technique developed on ‘L’ or ‘C’ levers. Some technicians prefer to use an impact lever on all upright pianos and a different type of lever on all grands as a way to diversify the wear and tear on their body.

The Levitan ‘C’ tuning lever

This lever was designed by Dan Levitan, RPT. The one pictured on the left is only for grand pianos (but there is a smaller version available for tuning uprights). It allows the technician to be ergonomically aligned with the axis of the tuning pin to minimize flex and maximize stability. This lever does require you to sit in an ergonomically comfortable position while tuning (NOTE: some technicians prefer to stand while tuning and this is not possible with this lever).

Tuning lever carrying bags

PRO TIP: If you have a nice tuning lever protect it. Your other tools in your tool bag will scratch and ding your tuning lever over time.

Ball-end tuning levers

PRO TIP: The ergonomic ball on the end of some tuning levers reduces joint pain around your thumb, wrist, and fingers. Straight levers without a ball tend to put more strain on your thumb, fingers, wrist, elbow, and shoulder as you grip the smaller shaft. To discover what size ball you need, gently grip a tennis ball, and pay attention to the stress you feel in your tendons. When tuning you never want to extend your fingers more than 50% of their full potential (or contract your fingers less than 30% of their full potential). If gripping your tuning lever over/under extends your joints you will notice pain (and pain is your body’s way of telling you that something needs to change).

Traditional extension tuning levers

PRO TIP: Avoid extension levers.

These types of levers were common for decades prior to carbon fiber levers. They have solid steel shafts that flexes more as the lever extends which makes fine tuning and stability very difficult to achieve. It is not impossible to tune with these levers, they just have a lot of downsides when compared with carbon fiber levers.

If you have this lever, make sure your connections (tip and extension collar) are super tight to get the best control and stability. An extension lever fully retracted is the best way to get stability using one of these levers. However, this defeats the purpose of the extension shaft and due to the shorter lever, you end up putting more wear and tear on your shoulder as a result.

Student tuning levers

PRO TIP: Graduate from student levers as soon as possible.

The reason student levers (and cheaply made levers) make it so difficult to achieve tuning stability is because the shaft does not extend all the way through the wooden handle (and because the metal they use flexes too much when put under stress). If this is the lever you are using, upgrade as soon as possible. The time saved and the quality of your work will instantly improve.

Mutes, mutes, & more mutes

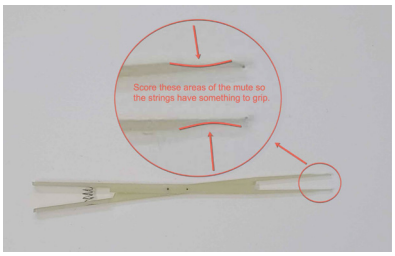
You only tune one string at a time. You need some mutes to silence and isolate the strings you want to listen to.

1. The temperament strip is used by technicians (mostly beginners) when setting the center strings in the middle of the piano. You don't need a temperament strip if you tune "open unisons" or use the "unisons-as-you-go" approach.

2. Rubber mutes are the most common but they tend to slide out as you play the note, they also harden over time, and the retrieval wires tend to get in the way.

3. Papps mutes are great for uprights, especially in the high treble.

4. Felt mutes are great for tuning grands, bass strings, and using the "unisons-as-you-go" method. They also last longer than rubber mutes and have better muting power.



Papps mute tip

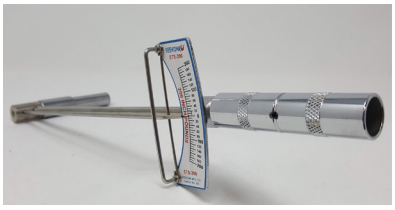
PRO TIP: Score the business end of the Papps mute with a razor knife using a herringbone pattern. This will give it more friction and holding power when you insert it between the strings.

Tuning tips & replacement tip wrench

PRO TIP: Tips come in #1, #2, and #3 sizes. #2 is the most universal but having the right size tip makes a big difference. Your tuning tip should fully cover the tapered part of the tuning pin but should never touch the string becket/coil. If it touches the coil it can act like a becket breaker. Also, having a super tight connection for your tuning tip is important. Use a tip wrench (*pictured on the left*) to create as tight a connection as possible Don't assume your tuning lever comes with the tip being tight enough.

Hygrometer

PRO TIP: Always carry a high-quality hygrometer with you when you tune. Record the temperature and humidity as soon as you are done. This will save you from the inevitable call you will receive where a client claims "Your tuning didn't hold". This is a possibility. But if you are confident in your tuning stability and the humidity shifted more than 5% since the tuning, you don't need to second guess your tuning stability. The changing humidity is the culprit and the customer needs humidity control in the music room to solve this problem.



Tuning pin torque wrench

This tool gives visual feedback for the amount of torque on individual tuning pins. Pianos start their life around 120 inch-pounds of torque and the pinblock is dead around 60 inch-pounds of torque. This is only a tool you will need until you learn to "feel" what a dead (or dying) pinblock feels like so consider borrowing it from your mentor.

Cleaning Tools

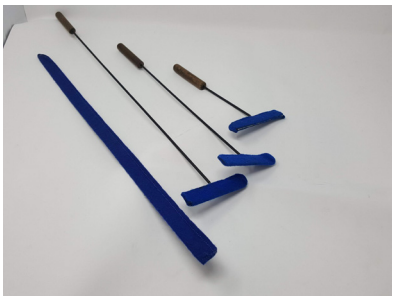
Basic cleaning tools

Basic cleaning and reach tools make all the difference in the world when you are trying to extract years of dust out of hard-to-reach places.

Left to right: Short soundboard sweeper for treble, long soundboard sweeper, microfiber flexible dust collector, vacuum hose with crevice tool, small high quality paint brush.

Handheld shop vac

A small 2-3 gallon handheld shop vac is a great starter tool for your cleaning kit because the airflow direction can be reversed allowing suction (or use as a small blower).

	**Soundboard sweepers** PRO TIP: Soundboard sweepers come in all shapes in sizes. They can be a simple piece of flat coated steel with a place to attach a rag on the end or covered in cloth/felt (like the ones in this image) which provide more protection from scratching the piano's soundboard.
	**Flexible microfiber tool** PRO TIP: Get a flexible (bendable) covered duster for under the bass strings, under the plate, and around the trapwork/pedal lyre.
	**High quality paint brushes** You need an assortment of high-quality paint brushes to properly clean the piano's plate, pinfield, action, and soundboard. PRO TIP: Only use high quality paint brushes because the cheap ones shed bristles all over the strings, soundboard, and pinfield.
	**Air in a can** Tip: Do not use air in a can. Tilting the can causes condensation that will rust the strings and damage action parts. Also, the shop vac suggested above is cheaper in the long run.

General Repair Tools

Screwdrivers

Start with a good selection of flat head and Phillips head screwdrivers (both large and small varieties). You don't need to carry every size into your service call but you do want to have every common size available in your service vehicle. Consider having a dedicated screwdriver set for your service vehicle and home life.

Cartridge screwdriver

Consider using a cartridge screwdriver to minimize the number of tools you have to carry into each service call.

PRO TIP: Sometimes this does not work because you need a narrow and slender shaft to fit between action parts. This tool is great for removing case parts but the cartridge holder on these types of tools is often too wide to work on an action.

Mechanic's magnetic tray

This is a handy tool to have as you remove case part screws. Older pianos have tons of screws and always having a safe place to put them will prevent you from needing to retrieve dropped screws from deep inside the action.

Headlamp & light

A good headlamp (at a minimum, a decent flashlight) will go a long way towards helping you properly diagnose repairs and spot issues you would have otherwise overlooked. It will also help you illuminate all the dust in the piano and sell more cleaning jobs.

Piano bench tools & wrenches

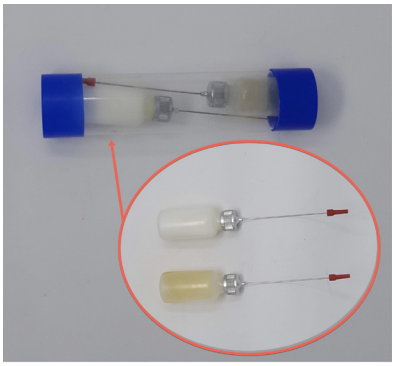
Purchase a good set of wrenches for tightening bench bolts. Piano benches are the most overlooked part of piano service and a solid seat that doesn't shake, rattle, and squeak makes a ton of difference for the pianist. Ratchet wrenches (*pictured on the left*) that have an angled end (especially the ones with a pivoting angle on the ratchet end) make tightening any bench bolt a breeze.

Needle nose pliers

Standard needle nose pliers are a must have in your toolkit.

Small chisel

Keeping a ¼" chisel on hand can save you in certain field service situations. It is not a common tool you will need, but when you need a chisel, you can't use anything else.



Liquid storage & application bottles.

Lubricating liquid (like Protek and Profelt) can be safely kept in long nose applicator bottles inside spill proof cases. This will save you (and the tools in your tool bag) a big mess someday.

Glues to keep on hand

A white glue and a brown (hide) glue are two essential glues to keep in your toolkit. Hot hide glue is better for working in the shop, but cold hide glue is just as useful in the field and is still water soluble.

PRO TIP: Write the date you opened the glue on the bottle. All glues have a shelf life.

	**Extra felt mutes** You can never have enough wedge mutes! Wedges (especially soft felt wedges) can be used to assist in a variety of repairs like holding something in place as a third hand; or holding the trap work out of the way while you work on something else.
	**Hammers** Standard carpenter claw hammers are rarely used in piano service. However, smaller finishing hammers and ball peen hammers are often helpful. PRO TIP: Put smaller hammers in your primary tool bag (they weigh less) but always keep a standard carpenter claw hammer in the car in case you need it.
	**Surgical scissors / suture scissors** Having a pair of super sharp (and small) surgical or suture scissors is really helpful when you need to cut felt or other small pieces of fabric. As an alternative, an exacto knife is a decent and cheaper option.
	**Butane torch** Keep a butane torch on hand. This is a good source of low intensity heat and can also be used as an indirect heat source for heating a brass rod, or hammer iron. Even better are flameless butane torches.
	**Telescoping magnet tool** Add a telescoping magnet tool to your toolkit. This will save you hours trying to retrieve a screw from deep inside a spinet or grand action.
	**Tweezers** Tweezers are a helpful addition to your basic toolkit.

Reducing Excess Friction

Flange repinning broaches

These are a must have tool in your toolkit.
Pictured on the left: a Mannino flange repinning broach set.

Talk to your mentor for tips on when to replace center pins and how to safely extract and reinstall new ones without damaging the existing parts.

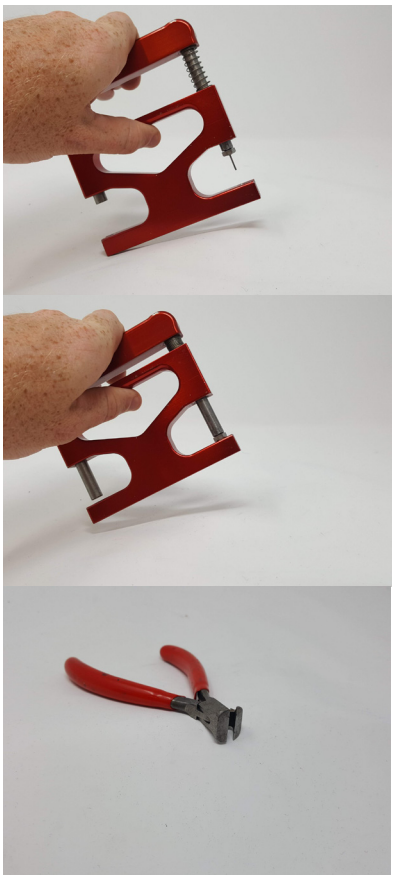
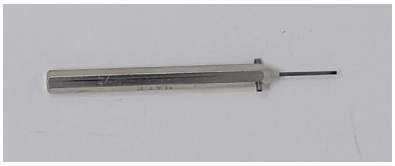
PRO TIP: Use **soda or coffee straws** to make storing the broaches easier.

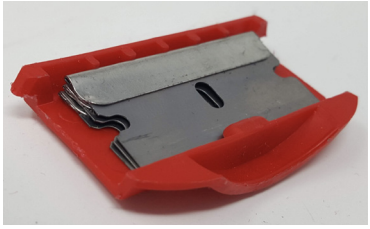
Center pins in a spill proof case

Store your assortment of centerpins in a spill proof case. This spill proof case is worth the extra cost!

A digital micrometer

You can approximate the size of the center pin you need by paying attention to the size of the flange repinning broach used to ream out and size the flange bushing cloth. However, having a micrometer on hand is always handy, not only for stringing, but also for sizing center pins and sorting spilled pins.

	**Helpful flange repinning tools** A **flange pin extractor and punch** tool is best for removing and installing new pins without damaging the cloth bushing. Use **flush cut center pin nippers** for sizing the new pins to the width of the flange after you install the new pin.
	**Hand punch in a small vice** PRO TIP: If you don't have a pin extractor a careful steady hand with a small punch in a pin vice can work to remove and reinstall center pins.
	**Pin vice** Having a larger pin vice is often easier than having the tiny tool above.
	**Pre-curled flange bushing cloth** If you ever damage or have a flange bushing cloth pop out, having pre-curled flange bushing cloth is a must. Talk to your mentor about best practices for replacing this felt. PRO TIP: Never insert a cut pin into the cloth bushing. The burrs on the edges of the pin will damage and possibly remove the cloth bushing from the flange. Always use new (uncut) flange pins that are properly sized for the friction you need in the flange. Insert the pin, then cut it to size.

	**Fresh sharp razor blades** Cutting felt in a piano almost always requires a fresh (super sharp) razor blade. Used blades and semi-dull blades don't cut felt well.
 	**Gram spring gauge for flange repinning** Using a gram gauge to test the friction on a specific flange is the only way to properly know whether the flange has the right size pin or if it needs additional sizing from a Mannino broach before you cut the excess length off the center pin. PRO TIP: You can use a swing test, or a "feel test" for jacks, dampers, and repetition levers. However, these tests are approximations that are not always accurate and often have too many variables to be reliable.
	**Key easing pliers** Key easing pliers help reduce excess friction in the key bushings at the balance and front rail pins. Don't put too much pressure on them. PRO TIP: Think about removing the lid on a disposable plastic water bottle and squeezing it just hard enough to cause the water to rise to the brim but not spill out. This is how much pressure you need to start with when key easing, increase pressure up to 3 times this amount as needed, but be careful not to crush the wood fibers.
	**Grand key easing pliers** These handy pliers allow you to ease key bushings with the action still in the piano (saving you 25 minutes of prep work to do a 10 second job). This tool is a must have in concert situations.
 	**Homemade go / no-go gauge for key bushing depth** Having a quick go / no-go gauge to see if you are installing new key bushings too deep is a must for beginners. This homemade tool is easy to make by whittling a spare hammer shank and using some sharpies (see second and third images for measurements to make this tool). The lip on the end grips the bottom of the key bushing. You should be able to see the green line if the bushing is the proper depth. If you see red the key bushing is either too deep or too shallow.

Regulation Tools

General regulation tools

There are a ton of regulating and repair tools you can buy, but you don't need all of them on day one.

Must have regulation tools!

These 10 regulating tools are the most basic tools you will need and are not easily replaced with other tools (meaning they do a specific job really well).

1. T-Scale for measuring things like keydip.
2. Hart Spring Tool for regulating spring tension and repositioning hard to reach springs in the action.
3. Balance hole reamer for reducing friction at the balance rail.
4. 9-in-1 gauge for setting regulation specs.
5. Combination handle.
6. 45-degree damper wire bending tool.
7. Inverted screwdriver for regulation buttons.
8. Upright damper spoon bender.
9. Long capstan tool.
10. Grand let-off regulation tool. Flower-shaped tool on one end for regulating eyelet screws, and capstan tool on the other for Yamaha type let-off buttons.

Hart spring regulation tool

This tool is designed to adjust the tension on repetition springs on grand pianos. However, it is also useful for positioning and adjusting the tension on any upright spring (damper springs, hammer return springs, and other similar types of springs).

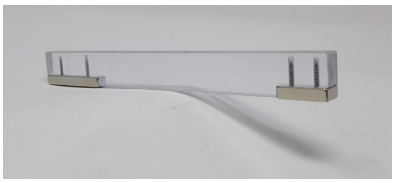
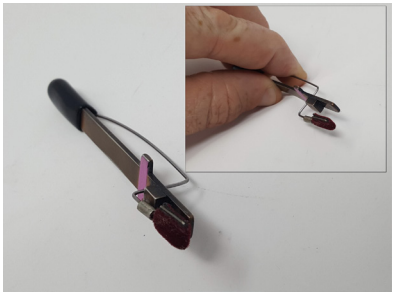
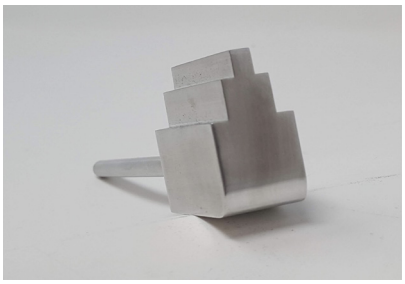
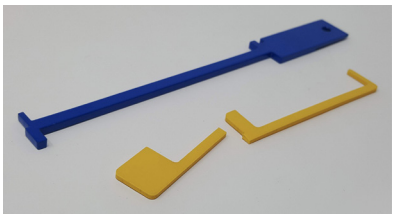
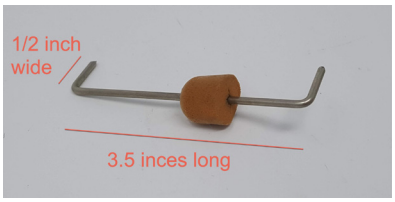
Grand let-off regulation tool

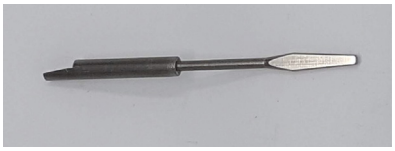
This is a handy tool that can adjust both types of let-off buttons.

Grand let-off ratchet tool

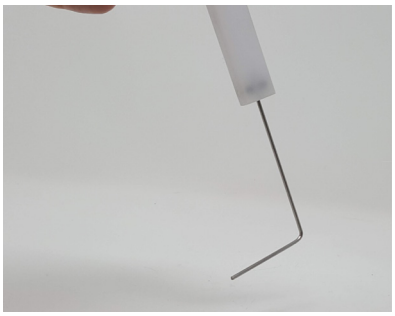
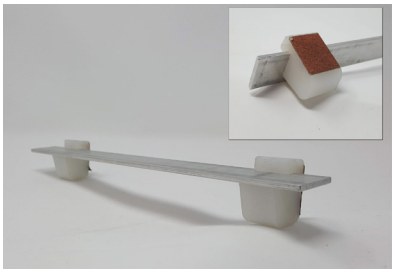
This optional tool is good for making big adjustments to let-off when you have eyelet type regulation buttons, but it does not fit on all pianos.

	**T-scale** This simple tool has a ton of purposes. If you don't have dip blocks you can measure key dip and things like hammer blow distance using this tool. The sliding scale piece can also be used as a micro-screwdriver. Metric or imperial doesn't matter, but with metric it is usually easier to do math in your head.
	**Key dip blocks** Using key dip blocks is much easier and faster than a T-Scale, but these are an advanced tool you typically add to your toolkit once you start doing more regulations.
	**Balance hole key reamer** The spade bit end of this balance hole reamer is designed to remove excess wood that causes friction near the bottom of the balance hole mortise.
	**Short & long capstan tools** We recommend having both a short (5-6") and long (8-12") capstan tool. If you only have a budget for one, buy the long one.
	**Damper spoon wire bending tools.** There are two types of damper spoon wire bending tools. #1 in the image on the left is easier to learn and easier to maneuver inside the piano. #2 is difficult and does not work on all pianos. PRO TIP: Spoon bending is always done blind because the action in the piano is such that you cannot see what you are doing, It is all done by feel. The thing that makes tool #1 easier is that it is easier to locate the spoon and travel from note to note with ease.
	**Micro-screwdriver set** Add a set of high-quality micro-screwdrivers to your kit. Regulation often involves turning micro screws in the action that typical screwdrivers are simply too big to handle.

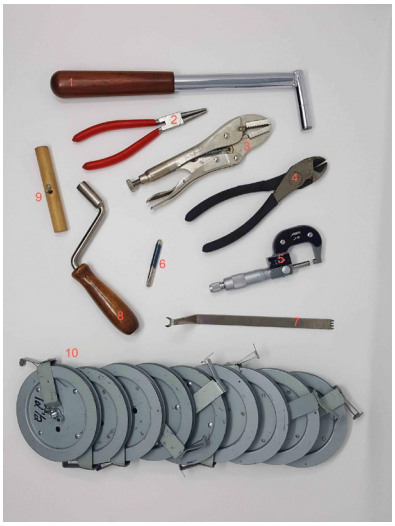
	**Upright damper timing gauge** This clear plexiglass block (with super magnets) attaches to the strings and serves as an upright damper timing gauge. When the dampers are properly timed (meaning the damper spoons are properly adjusted), as the hammer touches the block, the dampers can be seen winking through the clear section.
	**Grand jack alignment tool (NuckleJac)** This handy jig is spring loaded and designed to assist in positioning the top of the jack perfectly under the hammer knuckle core on a grand piano. PRO TIP: This step of regulation is impossible to do using only a visual approach because your line of sight is often obstructed by the neighboring action parts.
	**Square upright capstan tool** Some uprights and small studio console pianos have square capstans that require this specialized tool to regulate lost motion while the keys are in the piano.
	**Parallel pliers** These parallel pliers are needed for aligning backchecks and holding action parts while doing repairs. When you need parallel pliers, almost no other tool will do the job.
	**Jack positioning support block** This stairstep-looking tool is a support block for centering jacks in the repetition window while the parts are installed in the action. Procedure: The bottom of the wippen sits on one of the steps while you gently tap the top of the jack to center it in the repetition window. Without this tool, you have to remove the action parts to complete this regulation step.
	**Multi gauges** PRO TIP: metal 9-in-1 gauges are better than the plastic 3-in-1 gauges because they don't get crushed in your toolkit.
	**Homemade let-off jig** PRO TIP: Bend a 1/16"-thick wire (use a spare damper wire) 3-1/2" long with ½" 90-degree bends on each end. Now slip a foam earplug onto the jig. You now have a perfect grand let-off jig that will not fall into the piano. Procedure: Adjust the piano for slightly too little let-off so the hammer gently blocks against the string, play the note, and gently pinch the jig between the string and the blocking hammer, now with the jig pinched in place turn the let-off button down until the jig falls. Your let-off will be super accurate this way.

	**False beat eliminator** Cut a small slot into the end of a spare hammer shank. This tool will work if the false beats are coming from the speaking length of the wire. Procedure: Rapidly rub this against the speaking length of the string to creation enough friction that touching the string will burn your finger. Now let it cool and re-tune the note. This will eliminate some false beats so long as the bridge pins don't have unseen cracks below the surface.
	**Action screwdriver** The benefit of this action screwdriver for your combination handle is that the neck gets narrower closer to the tip. This allows it to be maneuvered between action parts without risking damage to the neighboring parts.
	**Balance hole easing tool** This tool for your combination handle allows you to size the balance hole for the proper amount of friction. Be careful not to overdo it. Ease the left and right side of the hole, not the front and back, to avoid causing chucking keys. Always start with too little pressure and work your way up.
	**Backcheck wire bending tool** This tool is actually a backcheck wire holding / support tool and it works well for grands and uprights. It does not actually bend the wire. It is designed to hold the wire steady and protect the wippen by absorbing the torsional force you apply as you bend the wire with your thumb.
 	**Alternative backcheck wire bending tool** This tool is sold as a backcheck wire bending tool but the slots are often too small and need modification. Instead use it as a bridle strap wire bending tool. PRO TIP: Don't buy this backcheck wire bending tool seen in the lower image on the left. It often doesn't fit and needs modification to work. Sadly, it comes in most regulation tool starter kits. The tool in this picture had the chrome plating chipped off during modification with a bench grinding wheel.

	**Punching extraction tool** This tool is designed to grip punchings so you can extract and insert them under the keys.
	**Slotted donut shaped nut screwdriver** This tool for your combination handle is designed to remove key upstop rails that have nuts that are slotted on either side of a donut shaped nut.
	**Flower let-off adjustment tool** This tool for your combination handle is designed to make regulating eyelet shaped regulation screws easier. These screws are often found on let-off buttons.
	**Alternative let-off adjustment tool** This is a common and perfectly fine let-off regulating tool for your combination handle. However, it is harder to maneuver as you often can't see where you need to put the tool. This is why the flower-type tool is easier to maneuver on the let-off eyelet screws.
	**Damper wire bending tools** These tools for your combination handle are at 45-, 90- and 180-degree angles and are actually wire holding/support tools. They do not actually bend the wire, but hold the wire steady, and protect the damper block, by absorbing the torsional force you apply as you bend the wire into the correct position.
	**Replacement bridle strap inserter for combination handle.** This tool for your combination handle helps you insert the cork style replacement bridle straps.

	**Hammer shank support tool** This type of tool helps you pull a hammer by its shank up to the string to assess alignment, voicing, and other aspects of the hammer without having to remove the action from the piano.
	**Front rail pin tool** This tool goes under the front rail punchings and helps you adjust the position and angle of the front rail pins. Always insert it below the punchings so you don't damage the coating needed to reduce friction where the key bushings meet the front rail pin.
	**Hammer alignment / key bedding tool** This tool helps you adjust hammer flanges without removing the action from the piano, and bed the keyframe using the square hole. PRO TIP: This tool does not fit Steinways. Use a small narrow flathead to finesse flange position and hammer alignment on a Steinway-style hammer flange.
	**Upright let-off timing jig** This jig rests behind the hammer shanks on an upright piano and holds the hammers at the point of let-off (held in place on the hammer rest rail cloth by friction and sandpaper on the back of the support blocks). When the jack goes through let-off, the hammer falls backwards and you see and hear a small tap on the metal bar. This indicates the jack has escaped and the hammer butt is no longer touching the jack.
	**Grand damper wire bending tool** This is a simple tool for an advanced procedure. The bends in this tool are designed to easily hold the damper wire in the piano while you make bends to regulate the damper position. This is an advanced procedure because it requires a lot of knowledge and practice to get the bends in the damper wire correct.
	**Traveling paper** PRO TIP: Layer painters tape on a block in thicknesses of one, two, and three layers. Label the sides and store it in your tool bag to use as traveling paper. Simply cut a small portion off with a razor blade and you will have three different thicknesses to choose from.

Stringing & Splicing



Basic stringing tools

Your basic stringing kit only needs a few basic tools:

1. A tuning lever
2. Round nose pliers
3. Medium size vice grips
4. Heavy duty wire cutters
5. Micrometer or string sizing gauge
6. A spare tuning pin for coil making
7. Coil lifter/string spacer.
8. Coiling handle.
9. A homemade loop making jig
10. Various size plain wire

(*Not pictured.*) Bass springs get spliced or replaced via special order.

Assorted tuning pins

Having an assortment of different size tuning pins is helpful when making beckets and splicing strings. Create the becket on the spare pin then gently remove it to transfer it to the pin in the piano.

Coiler tool

Having a coiler tool is helpful for making coils to transfer from a spare pin onto the pin in the piano. This is much easier than using your tuning lever (which can also be done in a pinch) or creating the coil in the piano.

Coil lifter/packing tool

A coil lifting/packing tool helps you create a tight coil as you bring the new string/spliced string up to tension.

Round nose pliers

These pliers help when creating hitch pin loops and working with wire, especially when you don’t want to add a kink in the wire which can cause false beats.

Stabilizer wire bending tool

This tool is used in stringing and is gently placed over the bridge pins to massage the wire around the bridge pin. It creates a cleaner bend in the wire and results in better tuning stability in the wire. Do this after a large pitch raise and expect the pitch to drop. Do another pitch raise and you will discover instantly improved pitch stability.

Warning: It is easy to overuse this tool. You don't want to bend the string in the speaking length. Think of the amount of pressure you would use to check your pulse. That is the amount of pressure you apply to this tool.

Medium size vice grips

Medium size vice grips are a must when splicing strings or bending wires.

Heavy duty wire cutters

You will cut some thick wire, especially in the bass. Having a heavy-duty wire cutter is a must.

Hitch pin looping jig

PRO TIP: Your homemade loop making jig is for making the end of string loops that go around the hitch pin. It is a ½" dowel rod about 4" long. Drill a ¼" hole in the middle, cut a slot into the side of the dowel so you can slide the string out of the hole, add a small screw at the edge of the hole for wrapping the wire tail, and use your vice grips and round nose pliers to create and hold the loop while wrapping the tail *(not pictured)*.

Procedure:

1. Create a loop with your round nose pliers. Keep bending the loop around until the tail crosses the rest of the wire at 90 degrees.

2. Drop the wire into the hole with the loop's tail resting against the screw.

3. Grip the loop with vice grips.

4. Rotate the dowel to wrap the tail around the rest of the wire. When the string is on the hitch pin, your tail should end up under the wire (not above), and the number of loops around the core wire should match what is currently on the piano.

5. Done.

String spacing tool

TIP: The string spacing end of your coil packing tool isn't always the right distance for every piano. You might need to use advanced methods to space non-agraffe treble wires. Talk to your mentor because this isn't always possible depending on the condition of the V-bar. Sometimes the strings cannot be spaced properly and you have to work with what you have.

Voicing Tools

Basic voicing tools

Your basic voicing kit only needs three or four tools plus sanding paddles.

1. A voicing block (to support the hammers)
2. An adjustable needle voicing tool
3. An angled voicing tool (for uprights)
4. A chopstick voicing tool (for voicing a grand between the strings with the action in the piano)

TIP: 90% of your voicing can be achieved with items 1, 3, and 4. #2 is optional and makes voicing easier because it does the job of multiple fixed depth voicing tools.

Upright voicing tool

PRO TIP: You can do 100% of the voicing you need to do with this tool. It won't always be the most efficient way of doing the job, but if you know what you are doing, this tool is effective. Over time you can invest in better and more specialized voicing tools.

Adjustable needle voicing tool

PRO TIP: This adjusting needle voicing tool can replace five or six other tools in your toolkit. This is one example of a tool that can do the job of six.

Unacorda voicing tool

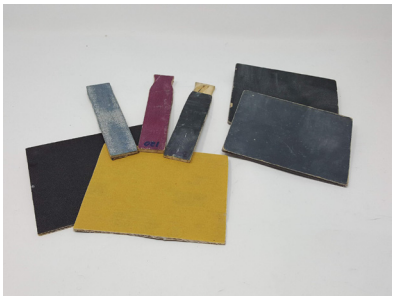
PRO TIP: An unacorda voicing tool is designed to voice in between the string grooves. The only differences between this and a chopstick voicing tool are:

1. This cannot be inserted with the action in the piano.
2. The chopstick only has one needle so it will need to be inserted more times to get the same result.

Chopstick voicing tool

PRO TIP: A chopstick voicing tool is a long slender brass rod that has a single shallow needle on the end (covered by the black rubber protective cap in the image on the left). This tool is great for voicing a hammer while the action is in a grand piano. Play the note, put it into check, and gently insert the needle into the hammer in between the string grooves while the backcheck is supporting the hammer head.

Warning: Don't stress the hammer when inserting the needle, and don't hold the tool at the string and accelerate the hammer into the needle. This will cause damage to the hammer and/or the hammer flange.



Hammer sanding paddles

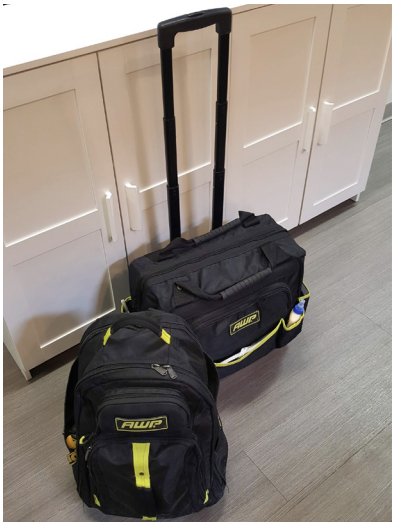
Sanding paddles are a requirement for every voicing kit. Pictured are homemade 4“ x 5” rectangles of ⅛” plexiglass and various grits of sandpaper ranging from 80 to 400 grit adhered to the plexiglass with spray adhesive.

PRO TIP: you can buy these from supply houses but it is just as easy to make them. Just be sure to use the spray adhesive as directed and let it dry on both surfaces before applying the sandpaper to the paddle.

Mini hammer sanding paddles

PRO TIP: Make smaller versions of these with a paint stick, spray adhesive, and sandpaper. You can also easily laminate the back of a high quality 2” x 11” sandpaper strip using thick packing tape. Then pull the paper strip across the hammer head. This technique requires a high degree of consistency to get a good result and is most often used with 400 grit for concert voicing (not rough shaping). Both these approaches are easy to make yourself.

Tool Bags & Misc.



Tool bags

Last, but not least, you need some high-quality bags to carry your tools around.

Consider:

1. A backpack tool bag with common tools.
2. A bag with rollers for your vacuum and cleaning kit.
3. A kit with your secondary tools in your service vehicle. You can go into an appointment with basic tools and have other tools ready in the car if you need to quickly do a repair.

Assorted trays of spare parts

Have an assorted tray of spare parts. The spool of thread in this kit is going to save the day when you need to splice/repair a broken hammer shank.

Other items in this image include rubber grommets, plastic elbows, jack springs, damper felts, damper springs, spare felt, spare case screws.

Assorted tray of rubber buttons/case parts

Having an assorted tray of rubber buttons is helpful. These things often go missing during moves (or when curious young kids are involved).

Doorstop

Add an inexpensive doorstop to your kit. You often need to prop a door to carry tools and parts in and out of a house.