1. General Instructions

Before going to the specialized tips for different instruments, let's discuss some general tips to take care of the musical instruments.

- Always keep your instrument in its case when not in use. Make sure case handles, hinges, locks and zippers are working properly.
- Never set anything on top of the instrument, and never store anything on top of the instrument inside its case.
- Don't leave the instrument in extreme temperatures, as fluctuations can warp and damage your instrument.
- Don't leave your instrument unattended, whether inside or outside of its case.
- If the instrument is being brought inside from colder temperatures, allow it to warm up to room temperature before playing.
- Keep the instrument clean of fingerprints and everyday dust and residue. Do this by wiping your instrument down with a clean, soft, non-treated cloth before storing it.
- Nowadays musical instruments are very costly and hence protective bag or covering for the instrument is a must, so that it doesn't go unattended even if you are not present at that moment.

2. Guitar

(i) Know the parts of Guitar

(ii) A brief note on Guitar parts

- The head or headstock is where you tune the guitar.
- The neck is where you hold the guitar in your hand.
- The body is where you strum or pick the strings with your hand.
- The standard guitar has six strings. The electric and acoustic guitar has steel strings and the classical guitar has nylon strings.
- Tuning Pegs - The pegs or tuners sit in the headstock of the guitar and hold the strings. The tightness of the strings can be adjusted and tuned by turning the pegs clockwise / anti-clockwise.
- Nut - The nut sits at the end of the neck. It provides an ending point for the vibration of the string so that open notes can be played.
- Fretboard / Fingerboard - The fingerboard is on top of the neck. The frets are placed into the fingerboard where the strings are pressed down to create notes.
- Frets / Fret Wires - Frets control the pitch and sound of the string you play.
- Cutaway - They add shapeliness to an acoustic guitar and broaden the playing range.

- Sound Hole - This is where sound reverberates and amplifies the specific note / notes.
- Pick Guard - Helps to protect the soundboard from getting scratched when playing.
- Pickups - The pickups are situated on the body where the fretboard ends. These are the magnetic parts responsible for picking up the string vibrations and translating this into sound through the amplifier.
- Bridge - The bridge sits on the soundboard and is where the other end of the strings are attached. The bridge helps to translate the vibration from the strings down to the soundboard.
- Pickup Selector Switch, Volume / Tone Knobs - These are the knobs and switches that control the volume and tone of the signal from the pickups to the output. Electric guitars also have a pickup selector switch so you can choose which pickup(s) to activate.
- Output Jack - The jack on the body of the guitar which is used to connect to an amplifier.

(iii) Guitar Maintenance Tips

- Get the fretboard aligned by the teacher once in fifteen days.
- Know the type of strings used for acoustic guitar, electric guitar, bass guitar and nylon guitar along with its gauges.
- For cleaning purpose cleaning agents available are guitar polish for the body only - lemon oil for fret board only - rust removers for strings only.
- Constantly tightening and loosening strings quickly ruins their sound. Loosen the strings unless it won't be used again for several months.
- Wipe the strings with a dry cloth before and after use. Store your guitar in its case when not in use.
- Products containing silicone should not be used.
- Turn the knobs and flick the switches.
- Pack Your Cable and strap separately in the pouch while putting in a case. Check which side comes top.
- Remove the tremolo arm of electric guitar without fail.
- Check the stand and only then place your instrument on to it.
- Do not let chords and cables lying around haphazardly. Make sure they are out of the way, so no one will accidentally trip over them.
- Do make sure that the power outlet you are using is in good working order. Check the surge suppressor or the outlet strip and replace them if you find problems.
- The guitar needs serious maintenance at least once every 4 to 5 months.

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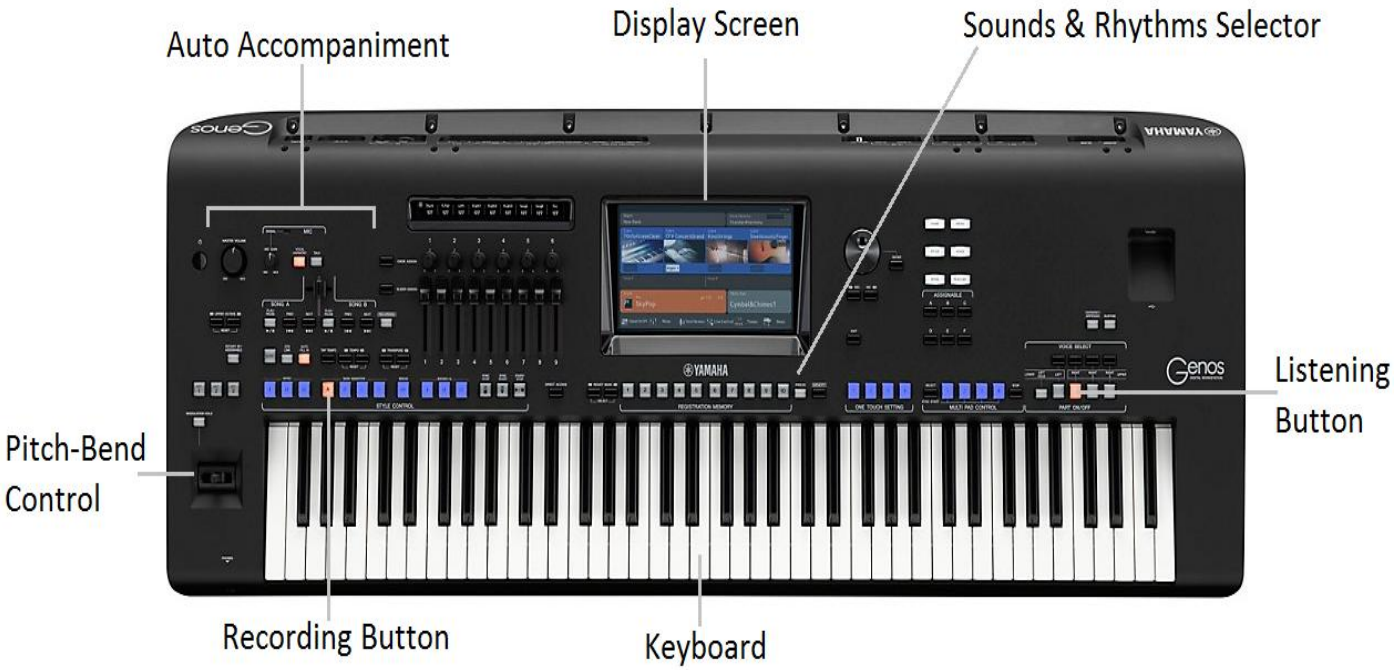
3. Keyboard

(i) Know the parts of Keyboard



(ii) A brief note on Keyboard parts

- Auto accompaniment - Allows choosing from pre-programmed accompaniment styles.
- Sounds and rhythms selector - Allows to choose different reel instruments and other sounds and also from pre-programmed tempos.
- Display screen - Indicates information related to adjustments.
- Listening button - Button that allows us to listen to a recording.
- Recording button - Button that allows recording a melody with its adjustments.
- Keyboard - White Keys that produce the notes.
- Pitch-bend control - Allows controlling the level of vibrato or the bass frequency oscillator speed.

(iii) Keyboard Maintenance Tips

- You should use a fiber cleaning solution to clean the instrument only if it is stained.
- At any cost do not use any cleaning material on the LCD. It will be burnt permanently.
- Do not overload an outlet by plugging your digital piano alongside with your desktop computer, microwave oven, or other electrical appliances. Sharing an outlet can interfere with the quality of sound and the overall performance of the piano. Overloading can also lead to circuits shorting out, fire and physical injuries, not to mention major damage to your digital piano.
- Do not connect any other instrument in the audio source except for a mobile phone.
- Do not let cords and cables lying around haphazardly. Make sure they are out of the way, so that no one will accidentally trip over them.

- Do make sure that the power outlet you are using is in good working order. Check the surge suppressor or the outlet strip and replace them if you find problems.
- Do unplug the digital piano when not in use, but make sure you turn it OFF first before pulling the plug.
- Remove the adapter, bookstand, books and headphones with converter pin without fail and then pack the instrument keeping in mind that the front / top part of the instrument is facing up.
- Keep all the accessories like adapter, bookstand, books and headphones with converter pins in the front pouch.
- Turn the knobs and flick the switches.
- Do not use any products containing silicone.

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4. Melodica - Maintenance Tips

- Keeping melodica in a warm dry place and letting it adjust for a while to the outside environment before playing will help tremendously.
- Shake the instrument vertically up and down until the moisture is all out.
- Always keep your melodica in a case or box when not in use.

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5. Drum Kit

(i) Know the parts of Drum Kit

(ii) A brief note on Drum Kit parts

- Sticks - These are the small wooden poles that are held in hand to hit most parts of the drum kit to create a beat.
- Stool - Often also called a drum throne, a drum stool is where the player sits to play the drum kit.
- Snare Drum - The snare drum is often the first part of a drum kit and the shallowest drum. It is situated between the knees when you sit at a drum kit.
- Bass Drum - It is often called as the kick drum, this is the largest drum situated on the floor in front of the right leg (for a right-handed player), it has a pedal facing the drum skin in front of the player's leg.
- Hi-Hat Cymbal - The hi-hat is the 3rd part of a drum kit and primarily made of two cymbals, which are metal discs that are hit to create a more high pitched or tiny sounds when compared to drum pieces.
- Ride Cymbal - Located on the right-hand side of the drum kit, the ride cymbal is the largest cymbal on a drum kit and is often played similarly to a hi-hat.
- Toms - Toms are the drums which often look like smaller versions of the kick drum and are normally sat on top of the kick drum.
- Floor Tom - There is normally only one-floor tom as part of a drum kit, and is usually situated on the far right of the drum kit.
- Crash Cymbal - Crash cymbal is normally attached to a separate long stand which hangs over the two toms situated on top of the kick drum.

(iii) Drum Kit - Maintenance Tips

- Drum kit needs serious maintenance at least once in every 4-5 months.
- Cleaning the kit (bass drum, toms, snare, etc.) with a dry cloth daily is advisable.
- When not in use, make sure that the kit is covered with a bedsheet or something similar.
- Never use abrasive cleaners (rubbing papers) on your drum shells as this can damage the drum kit, especially its skin.
- Exposure to heat or humidity also has chances to create some damage to the drum shells.
- Never store / setup your kit near heaters, under direct sun or similar conditions as this will not only damage the shells but also the finish of the drum kit.
- The piano polish called Piano Unicon is remarkably versatile and can be used for polishing fittings, shells and cymbals.
- Replace the drum heads when needed.
- Position your drum kit correctly and do not fix it in a very tight fitting.
- Give your kit a proper tune-up every 2 months.
- Use right kind of stick preferentially with nylon tip.
- Handle instruments softly, especially when lifting and keeping, as they are made of thin materials and will be damaged / broken easily.

Cymbals - Maintenance Tips

- New cymbals will have a coating and it just requires wiping with a soft and dry cloth.
- Special cleaner called cymbal polish can be used for taking care of the cymbal.
- When finished polishing, be sure to wipe off any excess polish with a dry cloth.

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6. Cajon Maintenance Tips

- Keep Cajon tuned and skin conditioned.
- Do not place rings or sticks near the drumhead.
- Serious tuning required once in every 6 months.
- Do not over tune your drum.
- Do not wear rings or any other type of jewellery that could come into contact with the drum's skin while you are playing it.
- Handle instruments softly, especially when lifting and keeping, as they are made of thin materials and will be damaged / broken easily.
- Always detune the Cajon when not in use.

7. Congo, Bongo and Djembe

Congo & Bongo - Maintenance Tips

- Wipe always with a soft or damp cloth.
- If the product is soiled or sticky, use a neutral detergent on a cloth then wipe with a damp cloth.
- Here's what you should do when the heads feel dry, put a bit (about a quarter-sized portion) of almond oil or any good lotion with lanolin in the palm of your hand, then rub your hands together and rub the lotion or oil into the drum heads. You can do this as often as the heads feel dry, to keep the leather supple and not brittle.
- Tune your (natural skin) bongos up before playing them, and down again when you're finished.

Djembe - Maintenance Tips

- Do use a drum bag.
- Do play your djembe often.
- Do clean the exterior wood shell frequently.
- Do not play your djembe with anything other than your hands.
- Do not put moisturizer directly on the skin.

- Do not over tune your drum and detune your djembe if you know you won't be playing it for a prolonged period.

8. Percussion Instruments - Maintenance Tips

- Remove or replace parts of various instruments properly.
- Clean and care for various instruments correctly.
- Tune and strike to avoid damaging them.
- Do not roll the bars up for storage. Instead, leave them flat on the cloth.
- Get wood polish if the bars of the instrument is made of wood. If the bars are made of metal, get some mild soap and warm water. If the bars are made of wood, take a soft cloth and gently rub the wood polish into the bars in a circular motion.
- For metal bars, lightly dampen the cloth with water and soap, and make vertical strokes along the bars. Have both wood polish and warm water with soap ready, as the body of an idiophone may have both wood and metal parts.
- Lift the resonator pipes directly out of their slots. Do not pull them at an angle or the pipes may become damaged.
- Place a soft towel or blanket on the ground near the instrument. This cloth should have the same length and width as the body of the instrument.
- Use the cloth and the cleaning solutions to clean the wood or metal parts of the body as needed.
- Using smooth strokes, gently wipe the pipes using a damp cloth with water and soap.
- When playing with multiple mallets, set them out on a stand but put a towel down first to keep them from becoming frayed.

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9. Rhythm Pad

Rhythm Pad - Maintenance Tips

- Handle the rhythm pad with proper care and always carry it with cover.
- You can use a mild detergent mixed with water to clean the surface of the DTX-PAD. Then make sure to dry off the surface with a soft clean cloth, be aware that you should never put it on display.
- Pack it by carefully removing the adopter and face it in top position.
- Turn OFF the knob and then the power supply whenever switching ON / OFF the instrument.
- Keep the rhythm pad in its case when not in use.

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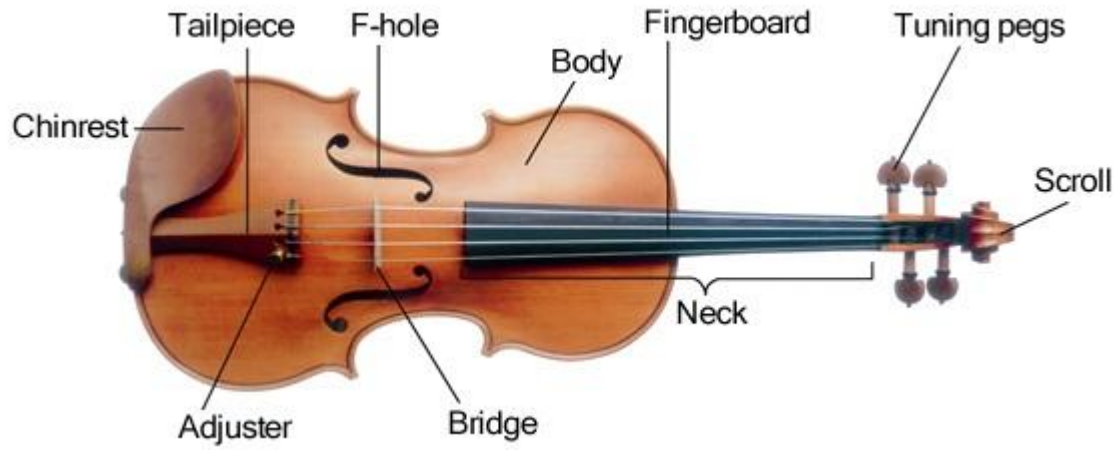
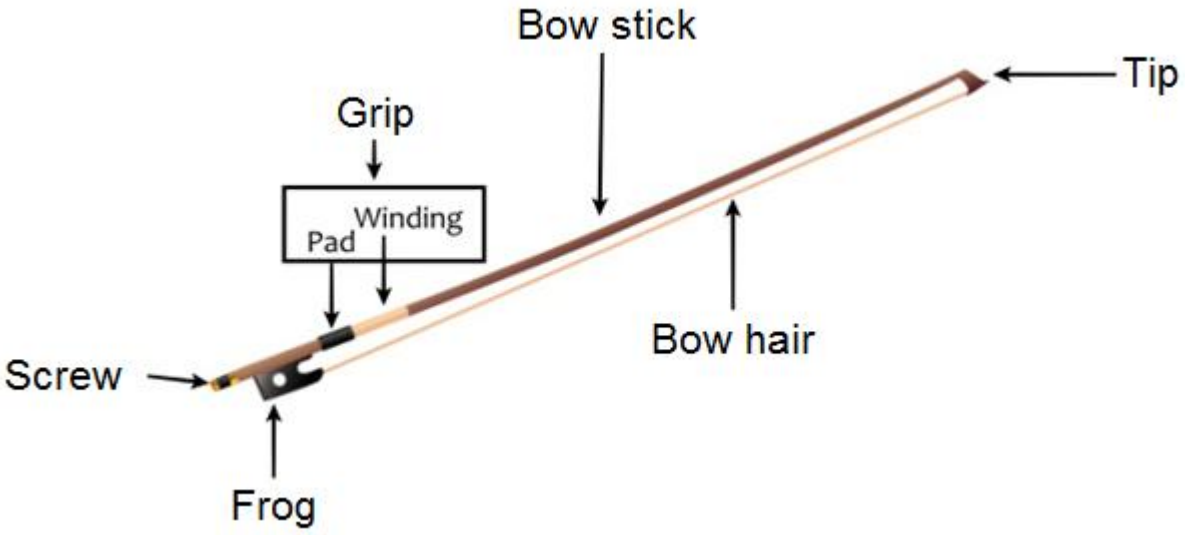
10. Violin

(i) Know the parts of Violin





(ii) A brief note on Violin parts

- Scroll - The scroll of the violin is the very top of the instrument above the pegbox.
- Tuning Pegs - The tuning pegs and pegbox are located at the top of the instrument by the scroll. This is where the strings are attached at the top. The majority of tuning is performed by tightening the peg.
- Neck - This is a smooth flat piece of wood where the musician presses down on the strings to make notes.
- Fingerboard - The fingerboard is the smooth black playing surface glued to the neck of the violin underneath the strings.
- Body - The body of the violin is the part that amplifies the sound in acoustic violins.
- F-hole - After the vibration from the string reverberates within the body of the violin, the sound waves are directed out of the body through the F-holes.
- Bridge - The bridge is a hard piece of wood that the strings lay on top of. The strings stop vibrating at the bridge and sound travels from the strings down into the body of the violin.
- Tailpiece - The tailpiece is attached to the bottom of the instrument by the endpin or end button, a small button on the side of the violin that rubs against the player's neck.

- Adjuster - Adjuster can be found on all four strings. It is also called as Fine tuners.
- Chinrest - Chinrest helps the musician to support the violin with their chin while playing.
- Tip - The tip of the bow is where the hair connects directly to the bow stick.
- Bow Stick - The bow stick is a long piece of wood and the main structure of the bow. It connects the tip and the frog.
- Grip - The grip or pad is where we place our first finger on the bow.
- Frog - The frog is a small piece of ebony wood that sits just between the grip and the screw. It is where we generally place our second and third fingers when holding the bow.
- Bow Hair - The bow hair stretches almost the length of the bow from the tip to the frog.
- Screw - The screw serves to move the frog and therefore tighten and loosen the bow hair.

(iii) Violin Maintenance Tips

- Clean the violin and wipe the rosin off the strings every time after use.
- Avoid putting too much rosin on the bow hair.
- Never use alcohol or solvents to clean your violin.
- Store the violin at a place with appropriate temperature levels.
- Check the bridge's alignment regularly.
- Always check to see if the soundpost of your violin is in the correct position or if it has fallen.
- Clean and wound the strings properly.
- Be sure to keep cleaning cloths in your violin case so that they're on hand at all times.
- Use appropriate violin fittings.
- Change your violin strings if needed.
- Always loosen the bow when not in use and get your bow re-haired if you are losing a lot of bow hair.
- Avoid touching the varnished parts and bow with sweaty hands.
- Never use glue to mend any parts of your violin.
- Always check the sound post.
- Visit a luthier if you think that your violin has parts that need glueing or repair.
- Wash your hands before and after your practice session. You will likely have some rosin, sweat, and dust on your hands, which you don't want to transfer accidentally onto different parts of your violin.
- Keep the violin in the case when not in use.

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11. Tabla

(i) Know the parts of Tabla

(ii) A brief note on Tabla parts

- Dayan and Bayan - The right drum is called the dayan or the tabla and the left drum is called the duggi or the bayan. Tabla is smaller in diameter and therefore it produces a high pitch sound which is the treble component. In contrast, duggi has a wider top and hence it produces a more grave sound that makes for the bass component.
- Syahi - Syahi is the tuning paste applied to the head of the dayan and bayan.
- Maidaan - The portion of the original skinhead which remains visible is called the maidaan or lav.
- Gajra - The outermost ring which binds the skinhead to the body is called the gajra.
- Keenar / Chatti - The topmost layer being cut in a circular shape to form the outer rim of the tabla is called the
  keenar / chatti. Similarly the circular rim on the right tabla it is called as goth, which is slightly wider than the chatti of tabla.
- Gatta - The circular wooden blocks are called the gatta. It is used for tuning the tabla.
- Padaga - The wooden drum in tabla and the metallic part in the duggi is the padaga.
- Simbe - The tabla and duggi are placed on the simbe which are made of straw and are covered with cloth.
- Baar / Baddhi - The leather laces are called the baar or baddhi. The baddhi passes criss-cross through the gajra at top and at the bottom, we have a circular hide called the ‘gurri’ which balances the tension in the skinhead.

(iii) Tabla Maintenance Tips

- Tabla should always be played with hands. Drum sticks should never be used.
- Make sure that the black spot (syahi) at the center is dry while playing.
- Always use a tuning hammer for tuning the tabla. Make sure that the tuning hammer is not pointed, else the heads might get damaged.
- Extreme tuning is required for every 6 months.
- Apply talcum powder to prevent the sweat of your hands rubbing on to the heads of tabla.
- Clip your nails before playing tabla, as they wear out the head quickly especially the 'Baya' (the bass drum).
- Clean the tabla heads whenever you notice any dirt, use a fine cloth or thin plastic piece with a blunt edge, as regular cleaning ensures good performance.
- Always keep the tabla set covered when not playing. Store them in a case that is meant for tablas or else cover the head with some hard, cushioned cap and then put a blanket over it. This will protect the head and microscopic crevices of the syahi from rapture, dirt, changes in temperature and humidity.
- Don't put heavy things on tabla as the head will tear easily if not well protected.
- Handle instruments softly, especially when lifting and keeping, as they are made of thin materials and will be damaged / broken easily.

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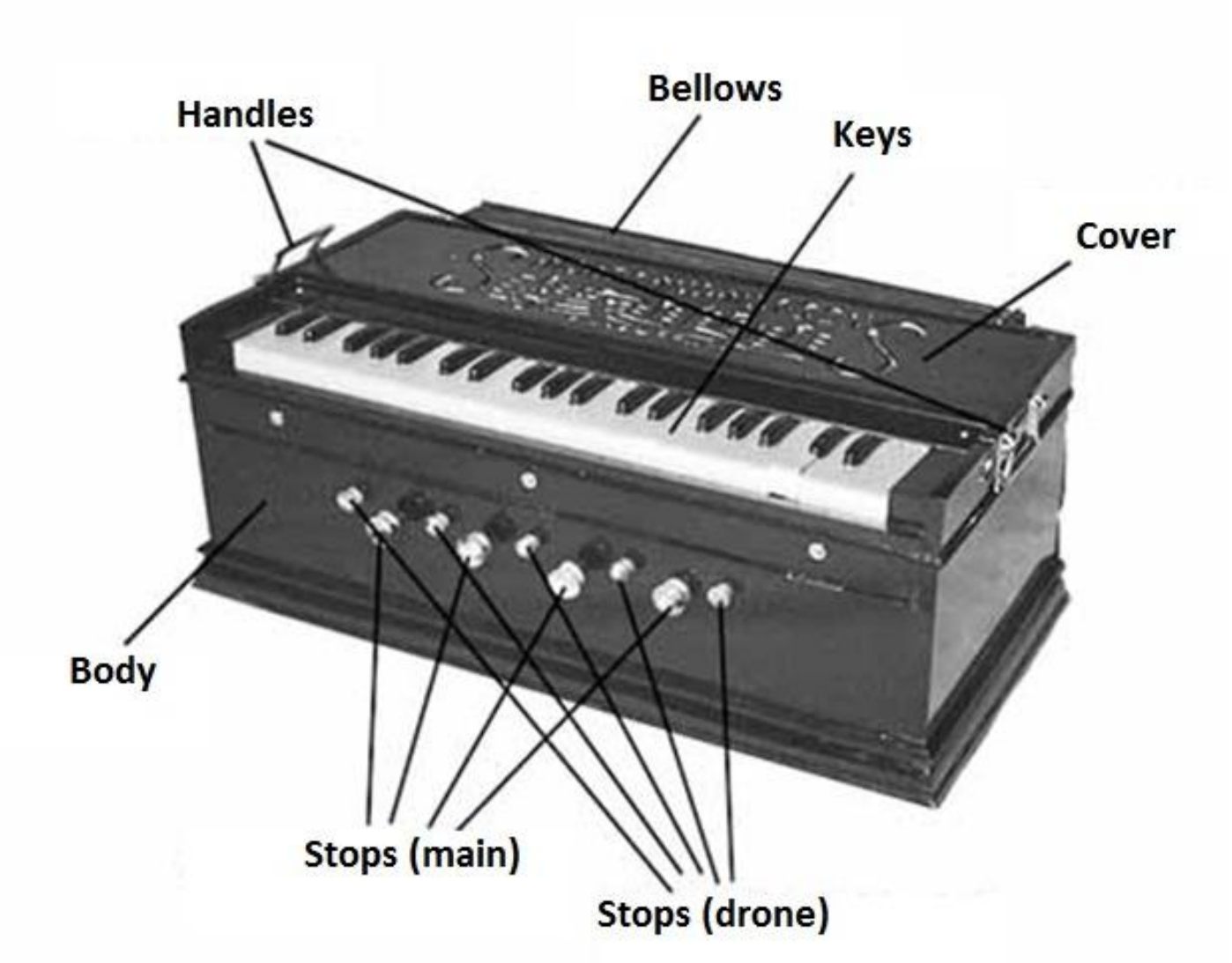
12. Harmonium

(i) Know the parts of Harmonium



(ii) A brief note on Harmonium parts

- Body - The body is the box that houses the various parts of the harmonium.
- Bellows - The bellows are the pumps which force the air through the instrument. These bellows lay deep inside the instrument and are visible only by disassembling the instrument.
- Keys - The keys, known as chabi, are the small wooden controls that the performers press to play the music.
- Cover - The cover is a small piece of wood, sometimes with cloth or glass, which covers the workings of the harmonium.
- Stops (main) - The main stops are a series of valves which control the way that air flows in the instrument.
- Stops (drone) - The drone stops control the flow of air over un-keyed reeds. They simply buzz their particular pitch.
- Handles - The handles allow for easy transport of the harmonium.

(iii) Harmonium Maintenance Tips

- Harmonium should be kept in a cool and dry place free of insects.
- Prevent the harmonium from direct sunlight so that its polish could be retained for long.
- Before playing, pumping of the external bellows assists in filling the internal bellows which further helps in building pressure.
- Make sure that children don't make any kind of holes in the bellows as it may affect the quality of sound.
- Do not rub the reeds within the reed board with your hands, cloth or any other material which may sometimes cause the instrument to sound out of tune.
- Extreme tuning is required every 6 months.
- Close stops and lock bellows before pushing the harmonium inside as they can break if not locked properly.
- Try not to turn the wetter drones as it stimulates air leakage and always remember to blow off the extra air before you close your harmonium.

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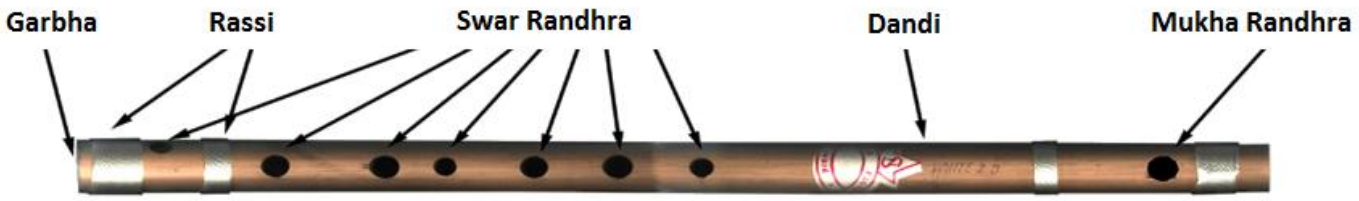
13. Flute / Bansuri

(i) Know the parts of Flute / Bansuri



(ii) Brief note on Flute / Bansuri parts

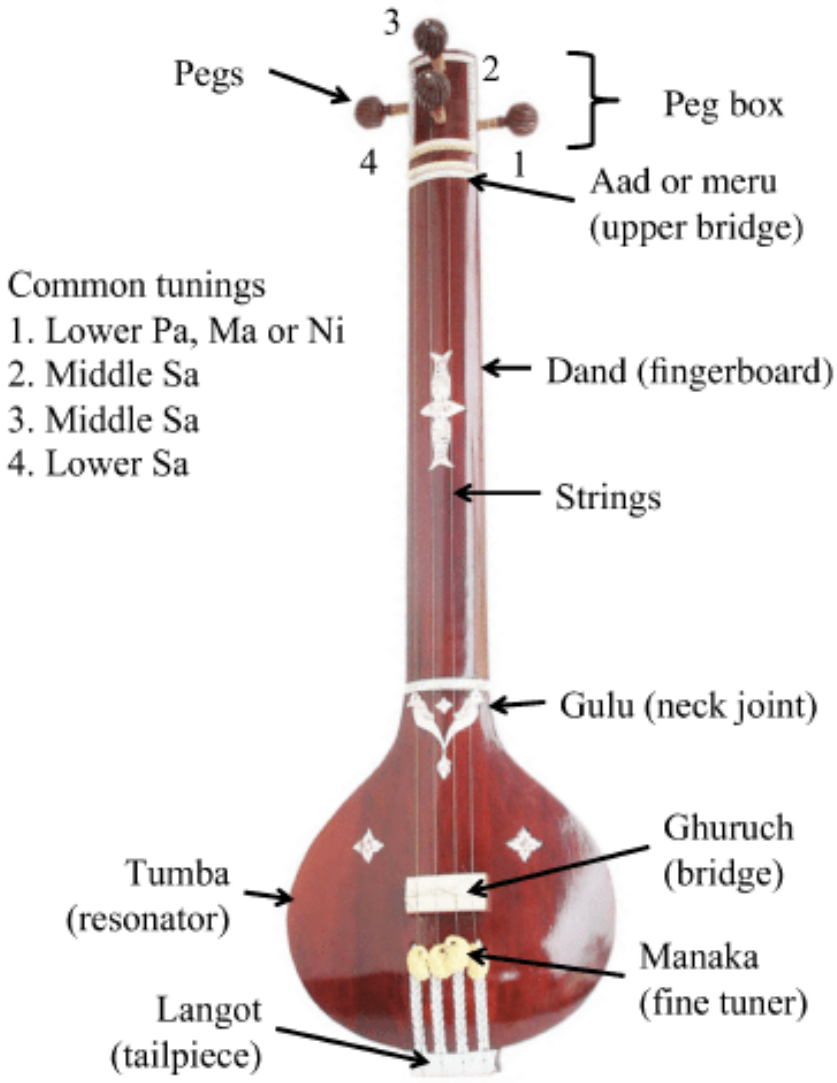
- Dandi - The dandi is the body of the bansuri.
- Mukha Randhra - This is the embouchure or the blowing hole.
- Swar Randhra - These are the finger holes.
- Garbha Randhra - This is the opening of the bansuri.
- Rassi - The body of the bansuri tends to crack. This cracking may be reduced or eliminated by tightly binding the body with twine. This is known as rassi.

(iii) Flute / Bansuri - Maintenance Tips

- Oil bansuri for the first time after 15 days of purchase. Always use mustard oil or walnut oil.
- Bansuri needs to be oiled frequently to prevent them from damage when climatic changes occur. For instance, it should be oiled 4-6 times a year in hot, dry climates.
- Never oil the bansuri after a practice session as it will be wet, let it dry for some time.
- Oiling should be done only before the blowing hole.
- Oiling swab should not be forced into the same, as it may get cracked.
- Avoid using a bansuri in cold conditions as it might expand unevenly and develop cracks due to the warm air blown into it.
- Prevent bansuri from dropping or knocking against any hard surface as it might develop cracks due to unidirectional fibre orientation.
- Make sure that bansuri is threaded / bound at both ends.
- If you notice the threading coming out, bind again using a thread or apply 4-5 rounds of tape.
- Never leave a bansuri on the floor, as a foot that walks over it may be yours.

14. Tanpura

(i) Know the parts of Tanpura



(ii) A brief note on Tanpura parts

- Pegs - There are generally 4 pegs in a tanpura or sometimes maybe 6 too as per the number of strings in the tanpura. Each string is attached to one tuning peg at the top. These pegs are used to tune the strings to a particular note.
- Aad / Ati - All the four chords of tanpura go up from the keel through ghuruch. A plate fixed at the upper end of dand, at which all the chords put separately is called aad / ati.
- Dand - A long and light stick of wood at which resets a thin plate is called dand.
- Strings - There are four metal strings, three are made of steel and the fourth and the lowest one is of brass.
- Gulu - Gulu is the point where tumba and dand are joined.
- Ghuruch - It is a stand put above the tabli (soundboard) at which rest all the four chords of tanpura.
- Manaka - The strings are fixed at the lower end of tumba in langot after passing through heads called manaka which are used for tuning.

- Tumba - Round at the bottom and for a little flat size, tumba is made of pumpkin or loki. It belongs to the lower part of tanpura. Tanpura stands on the surface with its base. It is hollow from inside and so it is very light and is helpful in sharpening the echo or sound of the swaras.
- Langot - There is some arrangement for tying chords below tumba is called mongra, keel or langot. All the chords are tied to this nail at the bottom and go up till the khuntis.

(iii) Tanpura - Maintenance Tips

- Protect the gourd in any case, avoid any sudden movements with the instrument and carry a case.
- Loosen the strings after a practice session, it is necessary so that grooves (cuts & cracks) are not developed over the bridge.
- Change the strings every three months to maintain its tonal quality.
- The wood can crack and the gourd will break in hot and cold seasons, this will make the entire instrument to be no good. So keep it in a room with a controlled temperature.
- Clean the tanpura with a cloth with small amount of wetness and wipe the strings before and after use.
- Keep the tanpura in the case when not in use.

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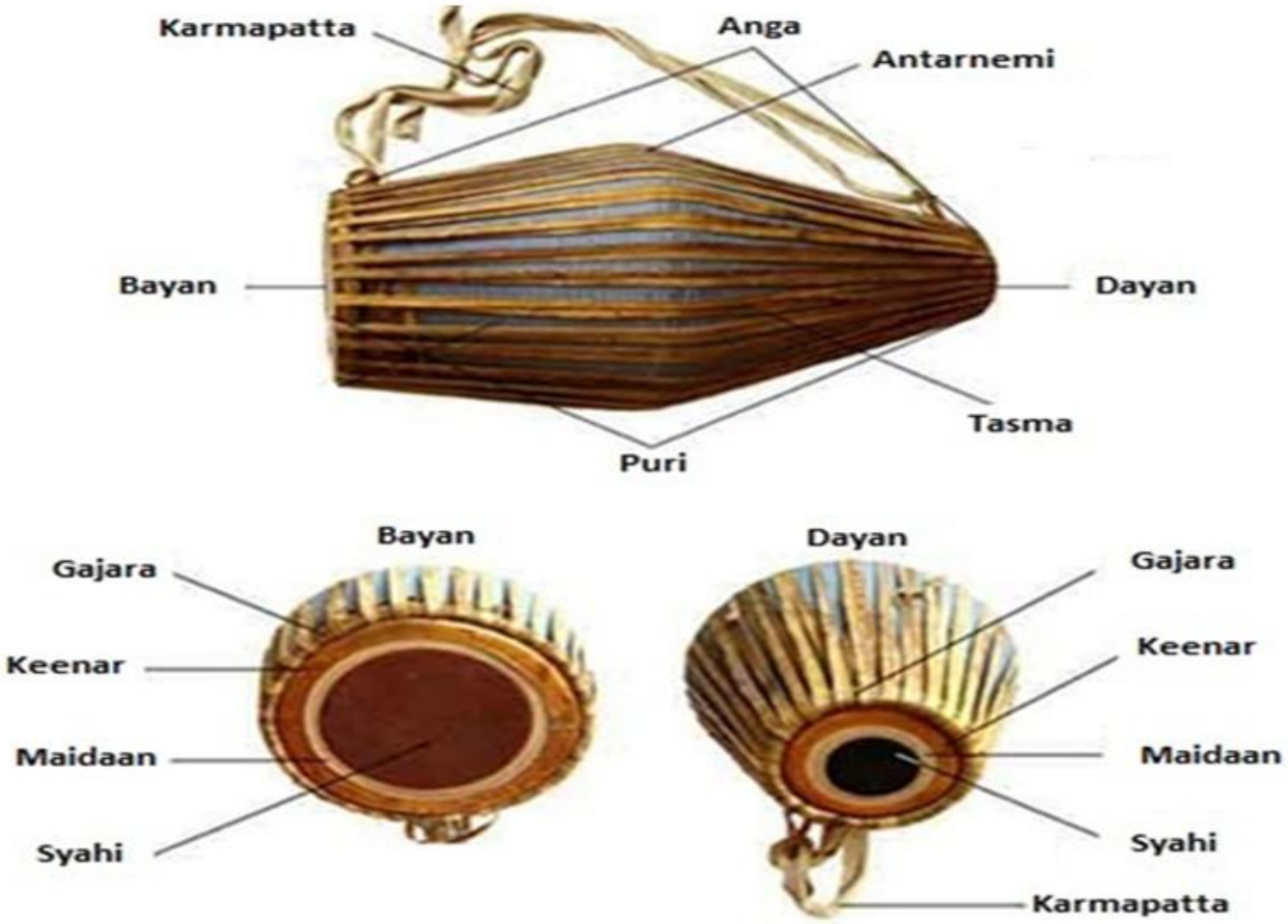
15. Mridangam

(i) Know the parts of Mridangam



(ii) A brief note on Mridangam parts

- Anga - The body of Mridangam which is made of clay / wood.
- Antarnemi - The two truncated cones, with a middle edge, are called as antarnemi.
- Karmapatta - A strap connected with both the ends, helps to hold the mridangam while playing / carrying.
- Dayan and Bayan - The right and left part of the mridangam.
- Tasma - Pieces of straw that is placed between the main membrane and the annular membrane radically between the two skins. This increases the dampening and acts as a snare.
- Syahi - At the center of the right head is a permanent spot of black paste. This spot, called the Syahi, is a mixture of boiled rice, manganese and iron filings. This black spot is responsible for the special tone of the mridangam allowing emission of harmonics.

- Maidaan - The portion of the original skinhead which remains visible is called the maidaan or lav.
- Gajra - The outermost ring which binds the skinhead to the body is called the gajra.
- Keenar - The topmost layer being cut in a circular shape to form the outer rim of the mridangam is called the keenar.

(iii) Mridangam - Maintenance Tips

- Apply castor oil for maintaining the thoppi in condition and avoiding the moottu from getting dry.
- Place the mridangam upright with its larger side facing down.
- Extreme tuning is required every 6 months.
- Always keep the mridangam packed to prevent damage on the syahi.
- Handle instruments with care especially when lifting and keeping, as they are made of thin materials and will be damaged / broken easily.

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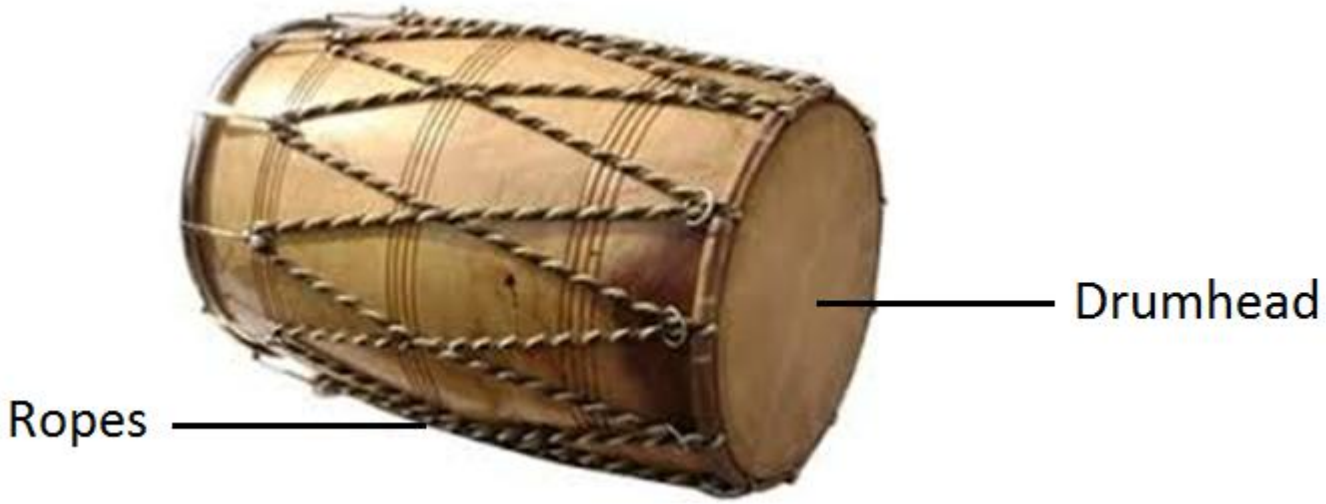
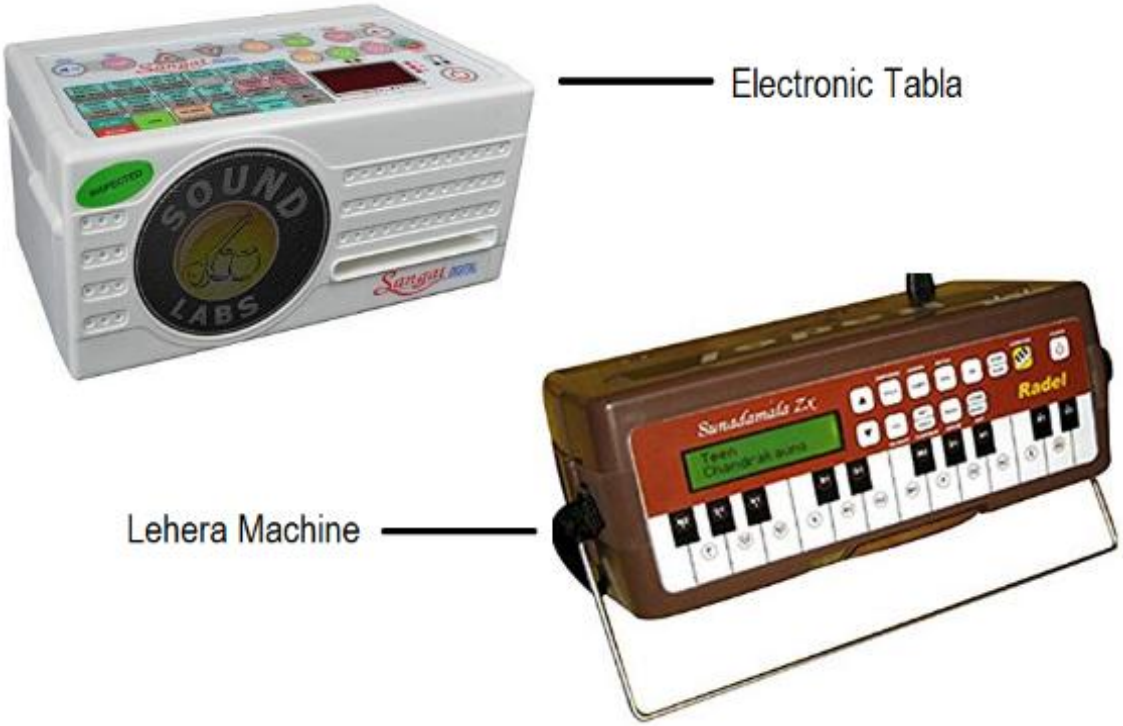
16. Dholak - Maintenance Tips



- Always keep the Dholak covered when not playing.
- Cover the skins with their head covers and do not tighten the rope too much.
- Keep in a dry area with a constant temperature.
- Loose the ropes of dholak after playing.

17. Electronic Tabla & Lehera Machine



(i) Electronic Tabla & Lehera Mach -Maintenance Tips

- Provide a gap of at least 10 seconds between switching OFF the instrument and switching it ON again to ensure reliable operation.
- Avoid using the instrument close to other electronic equipment such as mobile or cordless phones, pagers, etc.
- Keep it away from any liquid substances and do not wipe the instrument with water, a thin cloth is enough to clean them.
- Always keep the instrument in its cover after practice session or when not in use.

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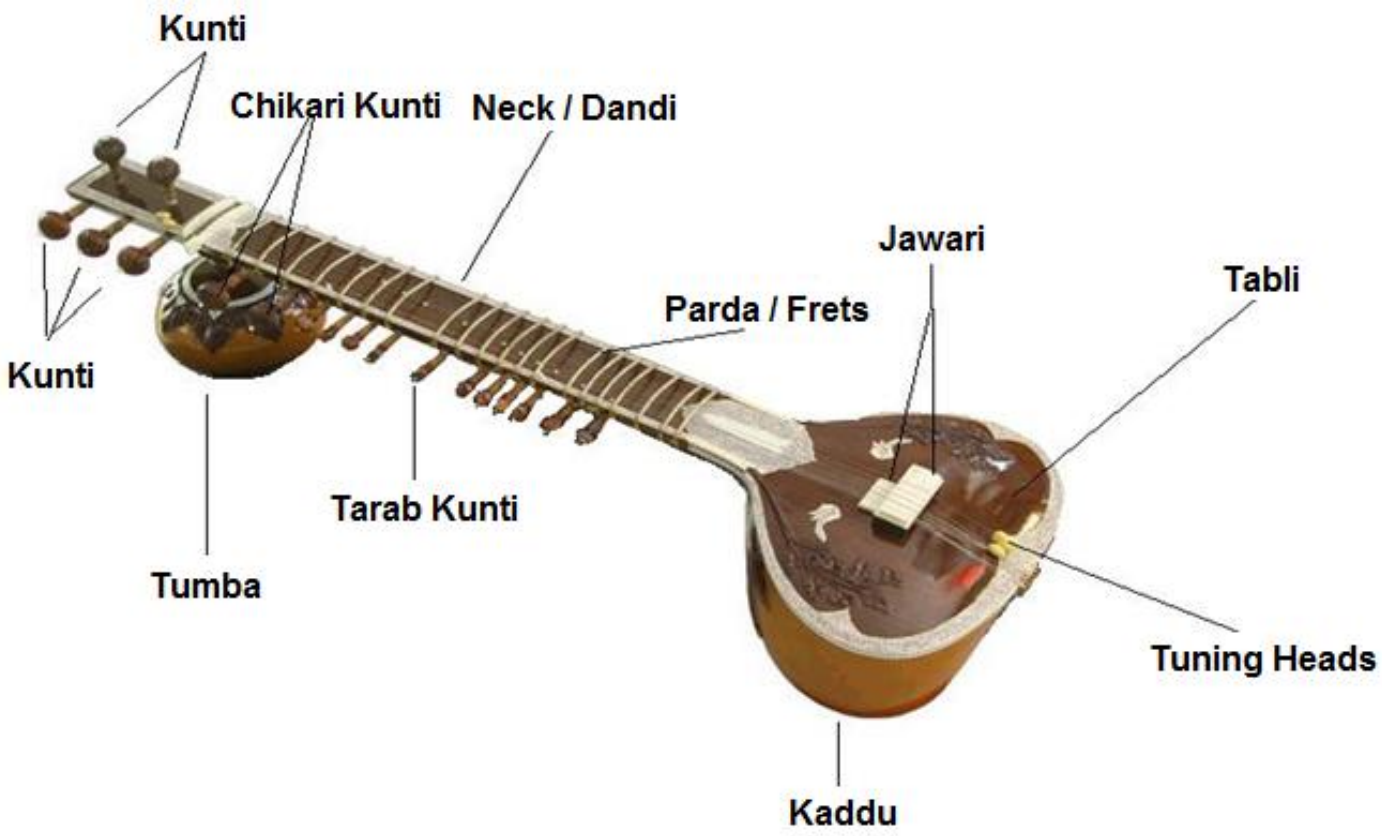
18. Sitar

(i) Know the parts of Sitar



(ii) A brief note on Sitar parts

- Kaddu - It is the gourd or the sound-box of the instrument. The gourd is a fruit from the pumpkin family.
- Tabli - It is the soundboard which filters out certain tones produced by the strings. The tabli is made of wood (usually teak or tun wood).
- Neck / Dandi - It is the neck of the instrument which is made of two pieces of wood glued frontally (thus, the inside of the neck is hollow). It is also known as the fingerboard, as fretting the notes takes place here.
- Kunti - This is the tuning peg, there are five kuntis for the five main strings on the sitar, two specialized chikari kuntis, where the chikari strings are affixed, and the smaller tarab kuntis which affix the sympathetic strings of the sitar.
- Upper Tumba - This is an optional gourd made of either gourd, wood, or metal.
- Pardas - These are metal frets that can be moved. The frets are tied to the dandi by high quality thread or fishing line.
- Tuning Beads - It allows one to fine-tune the main strings. It is important to use the main kuntis first to tune the general area of the desired note. If one needs to tune, one may use the tuning beads to tighten or loosen the string.
- Jawari - Jawari is the most important piece of the instrument. The flat bridge of the instrument (made of bone) has a special contour angle that gives the sitar its distinctive sound.
- Kaddu / Langot - This is the tailpiece which protects the main body from where the strings are tied on.

(iii) Sitar - Maintenance Tips

- Whatever you do, protect the gourd. It has been hollowed out to main various Indian instruments. Since the kaddu is a dried-out shell of a gourd, it must be handled with care as not to crack it.
- Loosen your strings after the practice session.
- Change your strings every three months.
- Avoid extreme temperatures and store the sitar in a constant dry place.
- Do not leave it unsupervised and cover the instrument when not in use.

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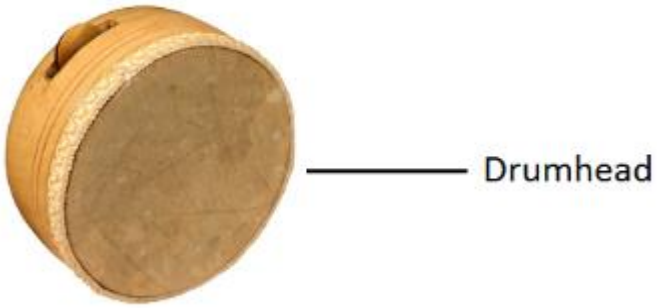
19. Kanjira - Maintenance Tips



- To get a good bass sound, the performer should reduce the tension of the drumhead by sprinkling water inside the instrument.
- Handle the instruments with care especially when lifting and keeping, as they are made of thin materials and will be damaged / broken easily.

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20. Dynamic & Condenser Microphones

Dynamic Microphone

Condenser Microphone

Dynamic Microphones - Maintenance Tips

- Be sure to let the grill dry before you put it back on the microphone. Air drying is the best way and even a hairdryer on low heat will also work as long as you have removed the internal foam windscreen. Never use a high heat setting, as it can melt the windscreen.
- If your microphone doesn't have a removable grill, hold the mic upside down and gently scrub it with a damp toothbrush. Holding the mic upside down prevents moisture from leaking into its cartridge. You can clean the foam that covers your SM58's diaphragm the same way.
- If your microphone smells bad, gently scrub it with a toothbrush soaked in a diluted solution of mouthwash and water. Again, hold the mic upside down when you do this. Never spray disinfectant or any cleaning agent at the head of the mic, since that will penetrate the grill and possibly damage the mic.
- If someone with lipstick used your microphone, you may find the stain smeared all over the grill. This stubborn substance is designed to stay on it and not to come off. Thankfully there are makeup wipes that were designed to remove lipstick without taking off your lips. These can be used to wipe the outside part of the grill and hopefully will keep the next person at the mic from getting second-hand lipstick.

Condenser Microphones - Maintenance Tips

- Always keep your microphone in a plastic bag when not in use. Any plastic bag will stop airborne dust and foam particles from windscreens and storage boxes from settling on the capsule. Put a plastic bag over the mic when you are not using it and always bag the mic before storing it in its case.
- Always use a stocking screen pop filter when recording vocals. It will intercept a singer's spit / saliva mist from gumming up the diaphragm and will keep the electrically charged capsule from turning into attractive flypaper for airborne particles. A contaminated capsule will eventually affect high frequencies, cause discharge noises, or shut down completely.
- Always keep a minimum distance of six inches between mouth and mic to prevent plosives from damaging the capsule.
- Always connect the cable from the power supply to the tube condenser mic before turning the power supply on. Voltage shock from a live power supply (hot plugging) can damage or kill a tube.
- Never put your condenser mic where you would not put your ears. Condensers are very sensitive instruments that respond to minute sound pressure changes. Excessive sound pressure level (SPL) will eventually degrade the capsule's diaphragm and prolonged exposure will damage your hearing as well.

21. Amplifier Maintenance

- Keep your amplifier away from a heat source.
- Keep your guitar away from the mold.
- Get a cover / flight case for your amp.
- Only use it in well-ventilated areas.
- Do not let your amp get wet.
- Set it to standby first and do not turn the power OFF when shutting down straight away.
- Match the amp to the cab.
- Keep the volume at zero when you turn your amp ON.
- Do not change the valves when it is hot.

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22. Projector Maintenance

- Clean the projection window periodically or whenever you notice dust / smudges on the surface.
- To remove smudges, gently wipe the projection window and obstacle sensor glass with lens cleaning paper and moisten a lint-free cloth for stubborn smudges.
- Warning: Do not use a lens cleaner that contains flammable gas, the high heat generated by the projector lamp may cause a fire.
- Do not spray liquid directly on to the projector.
- Do not use wax, alcohol, benzene, paint thinner or any other chemicals to clean the projector case, as these can damage the case.
- Do not use canned air otherwise; the gases may leave a residue.

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23. Cables Maintenance

- Use ties for combining and routing cables.
- Label your cables.
- Tighten the connectors and check your cables periodically for any damages.
- ID your plugs with labels.
- Shorten lengthy cords with DIY wrappers.
- Tie them up with reusable millepede cable ties.
- Build your cable-hiding charge station.
- Hide cables with foam pipe insulation.
- Store extension cords ‘tangle-free’ in a paper towel tube.
- Master the art of wrapping earbud cord.
- Catch plugs with a binder clip.

24. Costume Maintenance

- Inspect the dress-up clothes once per month and make any needed repairs.
- Repair aprons and smocks when necessary.
- Keep puppets and cloth dolls in good condition.
- Wash / launder the costumes in the dress-up containers on thefirst Friday of each month. Use your discretion about skipping washings for costumes that are too delicate or aged to withstand frequent washings.
- Keep dress-up hats as clean as possible.
- On the day of the Monthly Clean, take the dress-up shoes home and spray them with Lysol disinfecting spray. Let it dry for at least 24 hours before packing them back.
