# **Basic Tools / Supplies for Audio Technicians**

This section will cover some of the recommended tools and supplies commonly used by audio technicians to properly test, service, and troubleshoot audio equipment/gear/cables, etc.



Tool Kit (Back Pack) – Medium size back pack type "tool bags" are recommended – there will be plenty of room for all of your tools, testers, soldering iron, and supplies.



Tweaker – This is a small "flat-head" screwdriver used on XLR and Banana connectors (among other things). A "tweaker" is a must for every audio tech's tool kit.



Wire Strippers – A quality wire stripper is essential to a technician's tool bag. Never cut large cables with these strippers – as it will cause the cutting edge to dull.



"All in One"
Screwdriver Save a little room in your tool kit, and get yourself a "combination" type screwdriver (a very convenient tool).



Small Diagonal
Cutters – A useful
tool to cut smaller
gauge wires, and
handle "close" cuts
when needed. Do not
use on larger cables!



Needle Nose Pliers
These pliers are very
handy for soldering,
and come in various
sizes. The plier shown
has longer blades
than regular types.



Leatherman Multi-Tool
This multi-tool is very
handy to have around
when you need to fix
something quickly, and
you don't have your tool
kit handy.



Multimeter (Digital Multimeter, or simply "Meter"). A must have in an audio tool kit. It is recommended to start with a less expensive meter. Multimeters are covered in more detail on Page 120.

**Multimeter Basics - Video Clip!** 



Clip!

**Video** 

Q-Box by Whirlwind

Audio Tester / Signal Tracer
This is likely one of the most important test tools you can have in your tool bag. It can find audio / signal issues quickly, and speed up troubleshooting time.



For cleaning contacts, noisy pots, switches, etc. Some cleaners can destroy plastic, and harm equipment - use only the recommended type for audio related equipment such as DeoxIT Gold G5.



## **Basic Tools / Supplies - Continued**

Here is a list of some other basic supplies / tools that will be useful for Audio Technicians.



Canned Air Having some canned on your work bench will be very beneficial for preventive maintenance (PM's), and during troubleshooting as well.



Electrical Tape (E-tape) There are many uses for electrical tape so keep some handy. Use wisely – Never use electrical tape for any type of permanent repairs.



Electrical AC Outlet Tester
This is one of those testers that comes in handy when you need to know if an AC Circuit is "Live."
It is extremely easy to use.

### Other Useful Tools / Supplies:

The tools listed so far are just a handful of the ones that you need to perform the work covered in this booklet. But, do not limit yourself to just the tools listed.

Other tools you should think about:

- a) Wrenches such as open end wrenches or a small crescent wrench.
- b) Small screwdriver set other than the tweeker, small Phillips screwdrivers can also be very useful.
- c) Allen wrench set Since many pieces of audio equipment commonly have Allen Screws, this tool will get some use.



A good pair of work gloves are important for lifting and moving equipment (\*PPE).



Every tool kit should have a flashlight or headlamp, and spare batteries.



Cable Ties are very useful in a pinch, you never know when you will need one!

There will be many tools that you will be adding to your tool kit over time, but it's always a "best practice" to buy tools as you need them – not just to have them, and then never use them.



Whirlwind Cable Tester – This handy device tests all kinds of cables such as Microphone cables (XLR's), 1/4" mono, and 1/4" stereo (TRS), Speaker cables, and RCA cables. A very useful tester to have in your tool kit!

### PPE = Personal Protective Equipment

What is PPE? Why do you need it? PPE is about keeping you safe from harm while working with electronics, AC power, lifting, soldering, climbing ladders, etc. PPE is taking safety precautions to ensure that if something does go wrong – you are protected from serious harm. Example: Solder can potentially "flick" up towards your face during soldering – wearing Safety Glasses protects your eyes from the solder's extreme heat that could damage your eyes. Typical PPE equipment includes Hard hats, gloves, safety glasses, steel-toe boots, flashlights, soldering fans, and more. Being responsible is demonstrating common sense and using PPE as needed!

#### Here are some Tips on Tools / Supplies:

- a) Smaller size wire cutters and pliers should never be used on larger size cables, they will get dull or even break (that's why they make different size wire cutters).
- b) Keep spare 9-volt / AA batteries around for your Testers, Multimeter, and Flashlights.
- c) Always use a fan and wear safety glasses when soldering! No exceptions, use the proper \*PPE.
- d) AC Power can be very dangerous! Always Use Caution when working around AC power!

Safety Note: Always use common sense when using any kind of tool. Accidents can (and will) happen at any time, especially when you're not paying attention to what you are doing. Use caution at all times!

