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ELECTRONIC MAINTENANCE

Electric guitars and basses are subject to electronic problems. The most common problems are loose components, such as the jack or potentiometers, and corrosion.

In the case of loose components, the wires often break off due to fatigue caused by loose components moving around, such as potentiometers or jacks. To restore normal function, the wires must be reconnected. This is usually done by *soldering*.

In the case of corrosion, the

components must be cleaned and lubricated or replaced.

Soldering

Soldering is a distinct form of low-temperature welding that provides a bond between two metal surfaces. Unlike some types of welding that fuse metals together, solder only fills in the spaces in and between adjacent metals. Solder is used to make a reliable electrical connection that will remain free from corrosion and have good conductance.

Most people know what soldering is, but very few know how to do it properly.

Basic Requirements for Soldering

1. The correct materials.
2. Proper tools.
3. Good preparation.
4. Correct technique.

Qualities of Solders

Solders are mixtures of low melting-point metals such as tin and lead. Varying the ratio of the different metals controls the melting point of the solder. Usually the solder has a core that is made from rosin. This cleans the metals to be joined and promotes the proper flow.

Solders come in different diameters. Normally the diameter is selected according to the size of the job. For example, if you were soldering on an intricate circuit board, you would want to use small diameter solder.

NOTE

Some solders have acid cores. This is undesirable for electrical connections.