

Tek-ENTRY TekTip: Troubleshooting intercom systems

If an intercom system is completely inoperative (no functions), it is best to start by examining the power source. Most of TekTone's systems operate on 16 VAC or 24 VAC stepdown transformers. The output of the transformer should be checked with a voltmeter (set for AC voltage) to determine if it is good. Sometimes it is necessary to remove the transformer from the equipment it powers (especially in situations where there is low output) to see if it is being "loaded down" by a faulty piece of equipment. If the voltage remains low, then the transformer is most likely bad. However, if the voltage returns to a normal output level, then another device is likely to be failing.

If a transformer continues to have no output, even when it is disconnected from the device it is powering, it would also be a good idea to check the 120 VAC transformer input.

(Note: This type of testing should only be performed by qualified technicians!)

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More Troubleshooting for Intercom Systems

In the majority of our apartment intercom systems, problems can typically be divided into two categories. The first category is a general problem, which is a failure that affects the entire system equally. The cause of the problem usually comes from damage to the trunk cable, close to the amplifier, or a failure inside of the amplifier itself. A good way to determine if it is a cable problem or an amplifier problem is to direct test by connecting an apartment station directly to the amplifier, bypassing the field wiring. If the unit begins to function, then the amplifier should be considered OK and the cable should be suspect. If the unit continues to not function, then the amplifier should be suspect.

The other category of problem is a local problem, which is a failure that only affects one apartment or a small group of apartments. When this occurs, the wiring that serves the local area should be checked, as well as the apartment station. Swapping testing stations from apartment to apartment (if the tenants will agree) is a good way to determine if you have a bad station or not. If the station works in another apartment, then the wiring should be suspect. If the station does not work when moved, then it should be suspect. Rarely does a local problem reflect a failure of trunk cabling or amplifier failure.

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