



SATELLITE BROADCASTING AND COMMUNICATIONS ASSOCIATION

Importance of Properly Installed Fittings

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■ Improperly installed fittings and cable are responsible for a majority of all service calls. Frequently we can trace the failure of an LNB or receiver back to a short which was created by an improperly installed fitting. Most of these problems can be further traced to improper materials and or cable preparation.

It is amazing to think that the least expensive item (the fitting) in the installation is responsible for the most service calls. The time involved in traveling to the service call, diagnosing the problem and then repairing it can be almost as long as doing a whole new install. Not to mention the fact that every time a customer has a service call it has a negative affect on their perception of the service. Since most technicians are responsible for ensuring that their installation is trouble free for a certain period of time (up to and over a year) here are a few helpful hints to avoid service calls related to improperly installed fittings.

First make sure that you are only using materials from your platform providers Approved list. These materials have undergone the necessary testing and inspection to ensure that they will properly function for the environment that they will be used. If you do not have a list of Approved materials contact your authorized distributor for an updated copy.

Second, make sure that your installation tools are designed for the job and are in proper working order. Ensure that your crimper is compatible for the fittings you will be using. If you are using quad shield cable you must use a fitting designed for this purpose. Check the blade on your cable prep tool to ensure that it is sharp. A dull blade will often cause a couple pieces of braid to wrap around the center conductor instead of cutting them. If you unsure if the blade is dull you should replace it. Never use a knife or utility blade to prep a cable.

Lastly, be sure to properly prep the coaxial cable. While this seems like a simple process, it is amazing how many service calls I have gone on and found that the technician did not follow all the necessary steps to properly prep the cable. Here are some of the items to check for in the cable prep process.



- The prep length of the dielectric and braid should be at $\frac{1}{4}$ ". If you have too much or too little of either a proper connection will not be made.
- The center conductor length is set at $\frac{1}{4}$ to $\frac{5}{16}$ ". If the center conductor is too long it could potentially damage the cable or create a short. If it is not long enough you will not be able to get an adequate connection.
- If the center conductor is not cleaned of all adhesives and dielectric foam an intermittent connection will be generated.
- After the cable is prepped it is necessary to make sure the dielectric is round and not flat from the cable cutting tool. If the dielectric is compressed or damaged it could create an impedance mismatch.
- Ensure that the dielectric is flesh with the post of the fitting. If it is not you can create an avenue for moisture and prevent a sufficient connection.
- Lastly be sure to check for any loose foil or braid which might be touching the center conductor as these can cause shorts.

If you use employees or contractors to perform your installations be sure that they are also using the proper tools and following all the necessary steps for cable preparation. Don't assume they are, check their work and tools. It may save you the cost of a service call or a chargeback and will further ensure a satisfied customer.