

When determining the location of a short circuit or break within our heating mats, we have an arsenal of tools to help out.

Most systems can be troubleshot using a Shortstop (time-domain reflectometer). This tool sends an electric signal down the cable and reports back the length of feet down the wire to where the break or short circuit has occurred. The shortstop is very effective in determining the fault location when a floor plan or layout has been followed during the installation. It is important to know how the wire has been laid. The shortstop is loaned for a period of 14 days, with a deposit of \$300 which is refunded when the device is returned. The borrower will be charged shipping, but there is no cost for rental. A licensed and insured electrician isn't needed to use this device.

Another option for finding breaks and short circuits is the Trouble Shooting Kit or TSK. It consists of a Hi Pot (Dielectric Strength Tester), a variable AC transformer (Variac), Shortstop, extension cord, and splice kits to make the repair when found. The TSK will need to be used in conjunction with a Thermal Imaging Camera, which is rented separately. Knowledge of how the floor is laid is not necessary with this kit, as it is designed to let the user see the wire through the flooring material. The TSK is rented for \$150.00 for the first 5 days with a charge of \$50.00 for each additional past this period. There is refundable deposit of \$500 (minus rental fees, shipping, and parts or service needed to repair the unit if damaged). The renter will be responsible for shipping charges.

A thermal imaging camera (TIC) will be necessary when using the TSK. You may be able to source one elsewhere but Warmly Yours also has them available for rental. The thermal camera is rented for \$100.00 for the first 5 days with an additional charge for each additional day past this period. A deposit of \$500.00 is taken at the time of rental but will be refunded upon the device's return. The user will be responsible for the shipping out cost, Warmly Yours will pay for return shipping via a return label.

The breakdown:

Shortstop: no rental charge, \$300 deposit, requires an installation plan and verification that the installation plan was followed, 14 day loan period, user responsible for shipping charges. No electrician required for use. This is the least expensive item to use if an installation plan was followed

TSK: \$150 rental charge, \$500 deposit, 5 day loan period, \$50 per day rental fee for any additional days. Renter responsible for shipping charges. This kit does not require prior knowledge of floor layout. Licensed Electrician required for use. This kit is very heavy and is very expensive to ship.

Thermal Camera: \$100 rental charge, \$500 deposit, 5 day loan period, \$50 per day rental fee for any additional days. Renter responsible for shipping charges. This item does not require prior knowledge of floor layout. No electrician required for use.

If the failure is found at the factory splice, remove the splice and a couple of inches of wire on each side of the splice. Do NOT open the splice or apply voltage to the splice! Contact WarmlyYours at 800-875-5285 for information regarding the return of the splice for testing.