

INSTALLATION GUIDE

TS10-P and TS10-I



TS Series surge protection devices are designed to plug into Krone LSA distribution strips, and provide protection for all ten pairs in the terminal block. The TS10-P is designed for public switched telephone networks (PSTN) while the TS10-I is suitable for integrated services digital network (ISDN) & 50V private wire applications. For these products to perform as designed and provide effective protection, the following installation practices must be followed.

IMPORTANT

To be effective, the TS surge protection device must be earthed at all times. This requires the Krone LSA frame, into which the unit is inserted, to be earthed.

The surge protection device protects equipment from surges induced on to the telephone line. For comprehensive protection, all cables entering equipment, including ac mains power, should be protected. Contact your local distributor for further information.

INSTALLATION

Where to position the unit: The effectiveness of a surge protection device depends crucially on earthing. In most buildings, the main earth terminal at the mains/power distribution board, defines the "zero volt" reference for mains-powered equipment in the building. If the opportunity exists to run the telephone cable close to the main earthing terminal, (such as in a new installation) and place the Krone frame close to the terminal, this should be taken.

This is because surge current flowing to earth generates a voltage impulse along any earth cable, due to the cable's inductance. This voltage impulse appears across the protected equipment as a "common mode" voltage, between both wires of the telephone conductor pair, and earth. To keep this voltage as small as possible, the length of earth cable must be as short as possible, increasing its diameter has relatively little benefit. If possible, the earth cable should be no more than one metre long. This is true for all types and makes of surge protection device.

If this is not practical, the Krone frame must still be earthed, and the shortest path to the main earth terminal used. If its length is greater than a few metres, we strongly recommend fitting additional protection close to the equipment considered most vital to protect. Again, contact MTL Surge Technologies or your local distributor for advice.

Fitting the Unit: The TS Series devices simply insert into the Krone disconnection strip, and earth directly to the frame by means of its spring contacts. Ensure that the side of the protector labelled "*Equipment Side of Unit*" connects toward the side of the terminal block wired to the equipment to be protected. If there is any doubt about which side of the terminal block is wired to the equipment to be protected, the wiring must be traced to its destination. Failure to do this risks damaging the unit and the equipment to be protected.

MAINTENANCE

No maintenance is required on the unit itself, which should have a life of at least 20 years. However, it is advisable to periodically check that the earth cable remains undamaged and properly connected.

Troubleshooting

The unit is very robust, and this section covers the unlikely event of failure.

Phone line is dead: the normal failure mode of the surge protector is to short circuit, which is the safe, protected condition. In the event of failure, it will short out the phone line. To check whether the unit has failed, simply remove it from the Krone strip. If communications are restored, failure is indicated. The unit is not user serviceable and should be replaced.

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