

Installation Procedures – DropCheck™ 6300-DC-TP

1.0 General Product Information

These instructions provide the description and installation of Broadband Telecommunications' (BBT) DropCheck™ 6300 DC TP twisted pair fault protection device. DropCheck™ consists of two pieces that must both be installed in order for the product to function properly.

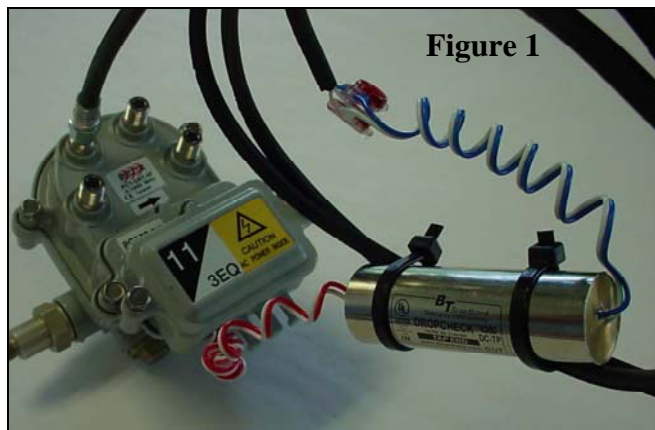
DropCheck™ is designed to be installed in 60 Hz network powered broadband communications systems, **low power application only** (40-90 Vac-rms). Use of this product will allow the user to comply with the condition of NEC Article 830-12(c) exception regarding the need for 18-inch burial of 60 Hz powered drops. The device shuts power off at the tap when one of three conditions exists. 1) When there is a ground fault on the power supply side of the twisted pair conductor (usually the blue conductor), 2) when an open circuit exists due to the cable with the twisted pair being cut entirely through or the cable being disconnected, or 3) when a leakage current of 0.5-5.0 mA exists between the power supply side of the twisted pair to ground. The product is intended to be used with a Listed SIU or RSU with a maximum 25W load and 75 ohm coax/twisted pair composite cable with twisted pair powering.

2.0 Required Materials

- Installation instructions
- 3M Scotch Lock copper conductor displacement connectors or preferred method.
- Tie wrap, MD-88 electrical tape or locally approved permanent attachment method
- One set DropCheck™ devices. (One tap unit and one premise unit makes up a set)

3.0 Installation Instructions

The "Tap End" DropCheck™ must be installed between the twisted pair power passing tap and the composite drop cable. The red/white 22 awg solid twisted pairs (side marked "IN") are connected to the tap as shown in Figure 1. The red wire is connected to power, the white wire to ground or return. DropCheck™ should be strapped to the coaxial side of the composite cable with a tie wrap, electrical tape or other locally accepted strain relief method. The other side of the Tap End DropCheck with the blue/white twisted pair (side marked "OUT") is connected to the blue/white pair in the composite cable with 3M Scotchlocks™ provided or other water resistant connection method. The blue wire is active power, the white is ground or return. The excess twisted pair should be dressed for ease of handling. (See Figure 1)

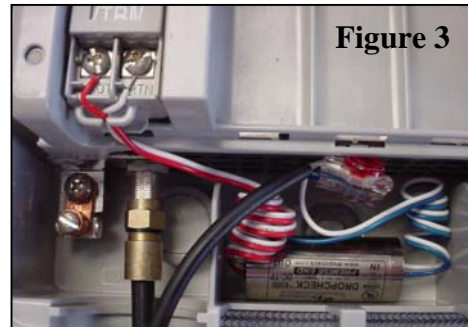
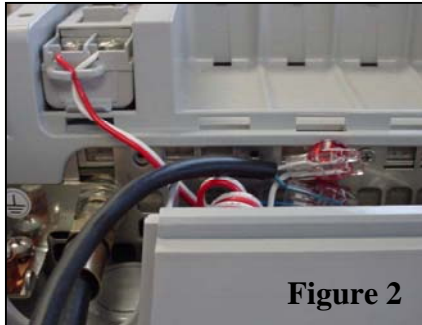


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The “Premise End” DropCheck™ must be installed between the composite drop cable and the RSU equipment. The red/white pair “OUT” is connected to the RSU. Red is connected to the “Hot” power connection and white to ground or return. The DropCheck™ unit should be placed internal to the RSU mounting enclosure, in a NID or “Housebox” or strapped to the coax side of the composite cable with tie wrap, electrical tape, or other locally approved method. The blue/white or “IN” twisted pair is connected to the twisted pair in the cable with the 3M Scotchlocks™ included or other locally approved water resistant method. (See figures 2,3)



After DropCheck™ is installed and power applied, the device can take up to two minutes to check the cable, reset, and be working properly.

4.0 Troubleshooting

If after waiting 2 minutes with the power applied and no signal is available at the home (no power passing through the DropCheck™ devices) the likelihood is that DropCheck™ is working as designed. A ground fault or an open circuit exists in the powered side of the twisted pair or the connections have not been made properly. Use Broadband’s Handheld Drop Cable Tester and Twisted Pair Adapter to confirm a fault and to determine if it is an open circuit or a powered conductor ground fault.

Check that both ends are connected properly.

Check to see that the DropChecks™ are installed in the right locations and with the correct polarity.

If there is still no power at the RSU and power is available with DropCheck™ removed, then the powered conductor of the composite drop cable has a ground fault and must be repaired or replaced.

If the RSU does not power up with the installed DropCheck™ devices then a test of the drop system should be next. Check the connectors on the ends, replace if necessary. Or disconnect the devices from the drop cable between the RSU and tap. Replace with a 150 ft drop cable known to be good. If there is power to the RSU then the powered conductor of the original buried drop cable has a ground fault and must be replaced.

Note: Specifications subject to change without notice

US Patent Nos. 5,793,590 and 6,462,923.

UL Listed UL DUAA Coaxial Fault Protector for Network Powered Broadband Communications Systems