

121 PROTECTORS

TESTING PROTECTOR BLOCKS

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1. GENERAL

1.01 This section describes the method of testing and clearing grounded protector blocks in 121 protectors using a test lamp and battery.

1.02 The primary purpose of this test is to remove carbon dust which may have accumulated in the 3-mil gap between the 32B and 33B protector (carbon) blocks. Defective protector blocks will also be detected.

1.03 121 protectors can be obtained with various arrangements of heat coils and protector blocks to meet specific Central Office requirements. The test, described herein, is required only on those protectors which are equipped with 32B and 33B carbon protector blocks. The description of 121 protectors is covered in G61.180.1.

1.04 This test should be performed after the 121 protector is mounted on the main distributing frame and before the stub cable is joined to the main cable. If the protector is not equipped with a stub cable, the test should be made directly after mounting. The cap and sleeve assembly should be in the **open position** (vertical) and the cable pairs, at the end of the stub, cleared before starting the test.

1.05 This test involves the use of a battery source and a test lamp. During the testing procedure, the lamp should be located so that it is in view of the person performing the test.

2. TESTING PROCEDURE

2.01 The circuit used to test the carbon protector blocks consists of a test lamp (7-1/2 watt, 110-volt frosted light bulb) in series with a 180-volt dc battery source. The 180 volts is obtained by using two KS-7890 dry batteries (90 volts each) in series. Connect one side of the batteries to one of the screws on the faceplate of the 121 protector. Connect the other side of the batteries to one of the wire leads from a porcelain light bulb receptacle containing the light bulb. Connect the other wire lead, from the light bulb receptacle, to a test pick (411A tool). Cross-connecting wire can be used to make the necessary wire connections. The light bulb and light bulb receptacle used to make the test lamp, should be obtained locally.

2.02 Touch the test pick to each tip and ring test terminal located on the left side of the protector. The test pick should be held on each test terminal for one second or longer. If a carbon condition exists the lamp will light. The flow of the current should burn out the carbon. The lamp will then go out. If the lamp remains lit remove the protector assembly and wipe the carbons clean with a cloth. Replace the assembly and retest. The ground or carbon condition should now be clear.

2.03 Following is an illustration of the test circuit:

