

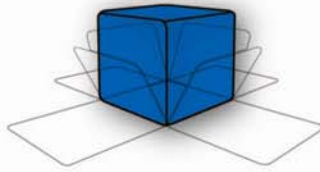
The blue box that tests. And tests.

## USE OF THE MANUFACTURED HOME CABLESET FOR HIPOT TESTING

**SCOPE:** The Compliance West USA Manufactured Home Cableset P/N MHC (4 foot leads), MHC-6 (6 foot leads) and MHC-RV (4 foot leads with small alligator clips more suitable for tight RV panels) are designed to allow fast and safe testing of Manufactured Home and RV circuits. This document shows connections and provides some safety guidelines. Please refer to the HT-2800 Operator's Manual for further information on safety practices and safe use in the workplace.

**SAFETY NOTE:** It is important to properly train personnel using the equipment and also personnel who may be in the area. Ancillary personnel should be advised of the potential danger of high voltage while the hipot test is being conducted. A safety zone should be enforced around areas where high voltage is present during the hipot test and all personnel not working directly on the hipot test should be excluded from this area. Please see our paper "Designing Hipot Test Stations – an overview", located in the USA University portion of our webpage at [www.compwest.com](http://www.compwest.com). A direct link to the page is [http://www.compwest.com/usa\\_university/Designing%20Hipot%20Test%20Stations.pdf](http://www.compwest.com/usa_university/Designing%20Hipot%20Test%20Stations.pdf). Much of this information can be implemented in the Manufactured Home / RV test areas to enhance operator and worker safety.

**DESIGN NOTE:** The Compliance West USA Manufactured Home Cableset has been designed for safety. There is only one hot lead, and this lead needs to be jumpered to the other hot in the panelboard for proper full-house testing. However, in the case of troubleshooting problems, testing is done on single circuits. In this case, only the jumper is removed from the panelboard and the single hot lead on the Manufactured Home Cableset is transferred to the hot of the single circuit being tested. The neutral is also broken out, and the neutral lead of the Manufactured Home Cableset is connected to the broken out neutral to completely isolate the circuit being tested. Please note that if troubleshooting is done according to the procedure, there are no loose leads.



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**PROCEDURE:** This procedure describes the method used for connecting to a panelboard with the HT-2800, using the Manufactured Home Cableset. It consists of a standard 15A NEMA plug (like the one on the wall end of a computer power cord) which plugs into the front of the HT-2800, and three wires: one green, one red, and one white. (Please note that older versions may have one black and two red leads. Connection information for this cableset is also described in parentheses). Alligator clips are provided for connection to the panelboard as follows:

WHITE: Connect to Neutral.

RED: Connect to one Hot; jumper to other hot so both hots are connected together.

GREEN: To Ground Bus.

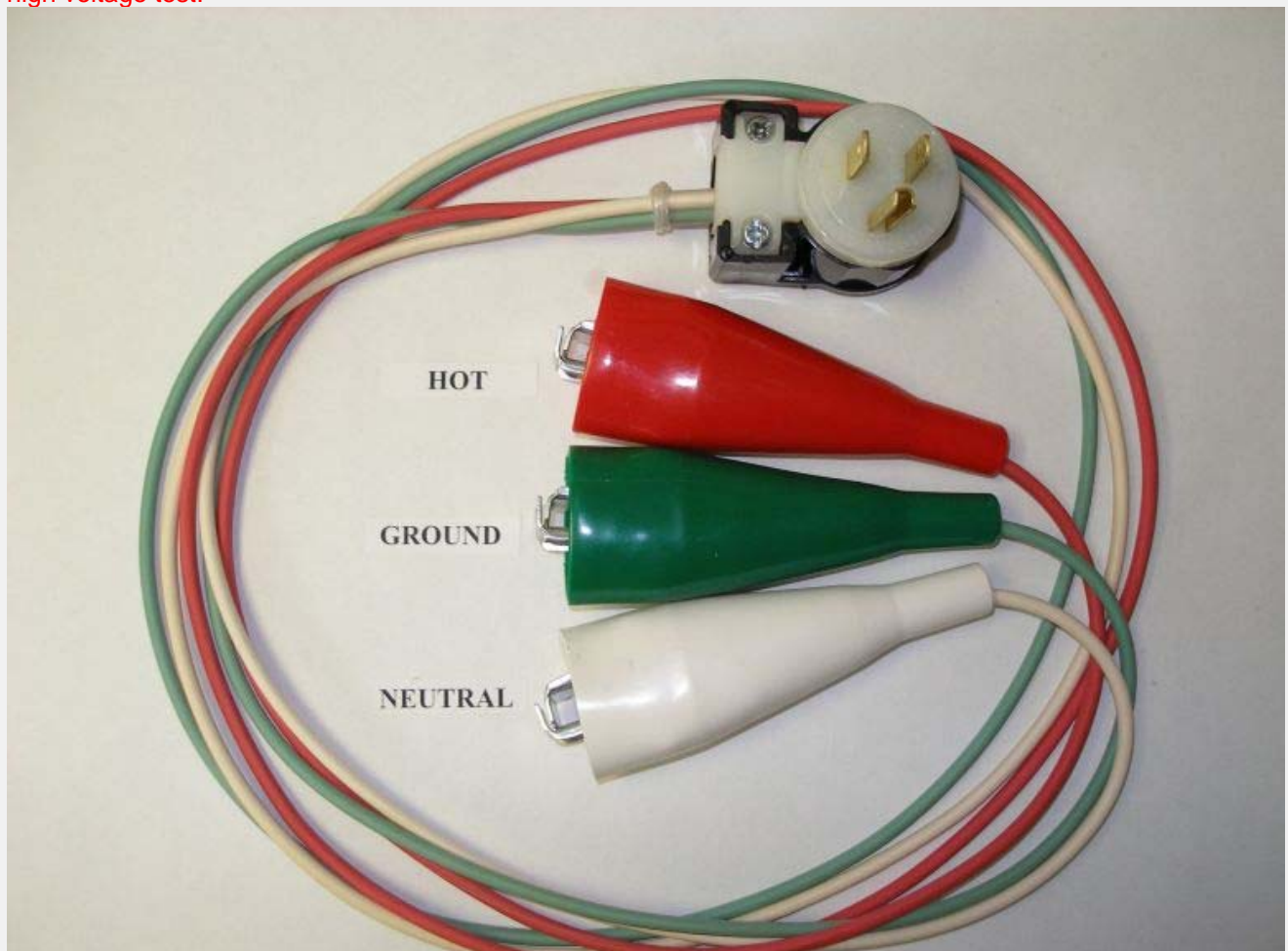
If your Manufactured Home Cableset has two Red and one Black lead, connect it as follows:

RED: Connect to Neutral.

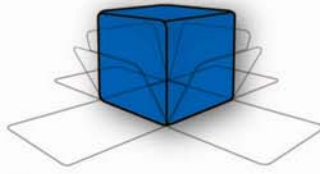
RED: Connect to one Hot; jumper to other hot so both hots are connected together.

BLACK: To Ground Bus.

Set all switches in the home to the on position, and set all breakers to the on position. Arc fault breakers and smoke detectors should be removed before the test is conducted. The test is conducted before the ground bus and neutral bus are strapped together. The home must not be powered for this test. **This is a high voltage test.**



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The final connection is the RETURN lead from the Compliance West USA HT-2800 Hipot Tester. It must be connected to the house ground. This could be the water heater or the frame of the home. This allows the Ground Continuity test function of the Hipot Tester to ensure the Ground bus of the panelboard is correctly connected to the frame of the home.

After these connections are made, the HT-2800 test is conducted by pressing RESET, then TEST. Test results will be shown on the front panel. **CAUTION:** This test is a high voltage test. Personnel not conducting the test should be out of the test area while the hipot test is being conducted.

#### **SPECIAL NOTE FOR TROUBLESHOOTING SINGLE CIRCUITS:**

In accordance with our Manufactured Home Hipot Video, single circuit testing is conducted to find faults if the house fails the test above. In this case, the hot and neutral leads of a single circuit are broken out and connected to the HT-2800. Use the same connections as shown in Page 2 of this document, and remove the jumper to the second hot connection from the panelboard. If this procedure is correctly followed, there are no loose wires and there are no exposed voltages outside of the panelboard. **The jumper must be removed from the panelboard when troubleshooting of single circuits is performed.**

The Manufactured Home Hipot Video is available free of charge. Please contact us if you would like a copy.