

Handbooks 61, 65, 67, 69C & 69SP  
Western Electric  
Columbus Works

UIS Section .2

11-18-75

## URGENT INSTRUCTION OR INFORMATION SUPPLEMENT

## GENERAL TESTS

1. GENERAL

1.1 This UIS is being issued to add to the information found in Paragraph 5, Continuity Tests, a newly developed Multiple Lead Verification System (MLVS) Test Set, ITE-5609. The UIS provides advance information which will be included in Handbooks 61, 65, 67, 69C and 69SP, Section .2 at a later date.

2. INSTRUCTIONS2.1 General Description

2.11 The test set is designed for continuity testing of power cable, surface wiring, switchboard cable, etc. List 1 consists of a 13 lead resistance network, in a non-breakable plastic case, terminated with alligator clips for testing power cable. List 2 consists of a 13 lead resistance box and an extension probe bracket, and is used for testing surface wiring and switchboard cable. The leads are terminated with wire wrap terminal connector and the extension probe is used for electrical connection to a wire wrap gun.

List 1 and 2 must be used in conjunction with an ITE-4442A Volt-Ohmmeter. List 2 can be used with or without a wire wrap gun to fit the demands of the application.

2.2 Using the Test Set2.21 Power Cable Testing

2.211 If found to be necessary, a special wire identification scale may be made by taping a 1 inch transparent cellophane tape across the face of the ITE-4442A VOM as per Figure 1. This tape can be marked with a grease pencil and easily changed to identify specific leads. Be sure to remove the tape after testing.

Before testing, calibrate the ITE-4442A VOM by placing the range switch on "X1K" and connect "+" and "-" meter leads between the resistance box leads "12" and "GRND" respectively. Zero adjust the VOM using the "Ω" adjustment.

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NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT
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If a common return path, ground, etc., does not exist, connect the yellow and the "GRND" resistance box lead to any two wires of the cable. Take the VOM to the other end of the cable and search for any two leads that make the VOM indicate between 2 and 10 on the black AC-DC meter scale. The lead that connects to the "-" VOM probe is the "GRND" lead of the resistance box and can be marked at both cable ends and used as a common return for the testing.

Remove the yellow lead and connect the other resistance box leads, 1 through 12, to the cable leads under identification. Use the VOM, Figure 2, and identify leads 1 through 12 at the remote cable end, using the black AC-DC VOM scale marked 1 through 12. Repeat in groups of 12 or less until all leads have been identified.

2.222     Switchboard Cable, Surface Wiring, etc., Testing

2.2221    Repeat Steps 2.1a, b, c, where they apply.

If a wire wrap gun is to be used, List 2, connect the extension probe bracket to the gun tip, as per Figure 3, using the wrench provided.

WARNING: A METAL WIRE WRAP GUN TIP SLEEVE MUST BE USED, A PLASTIC TIP SLEEVE WILL NOT WORK.

Wire wrap 12 leads at one cable end and connect the resistance box leads, 1 through 12, to the wire wrap terminals.

Connect the extension bracket to the VOM and insert the cable lead to be identified into the gun tip. Identify the lead end using the VOM and connect it to the proper terminal.

NOTE 1: No further testing should be necessary after connecting the lead.

NOTE 2: The gun bracket assembly is not necessary if the leads are not to be wrapped.

ATTACHMENTS

Figures 1-3 on Pages 3-5.

Manager, Product Engineering  
Control Center

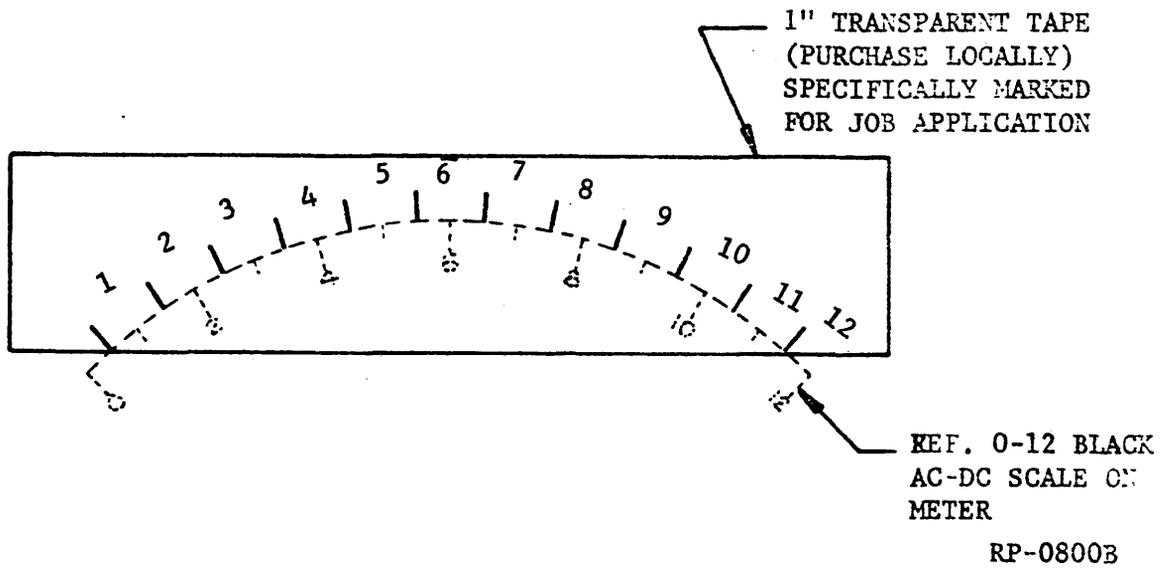


FIGURE 1

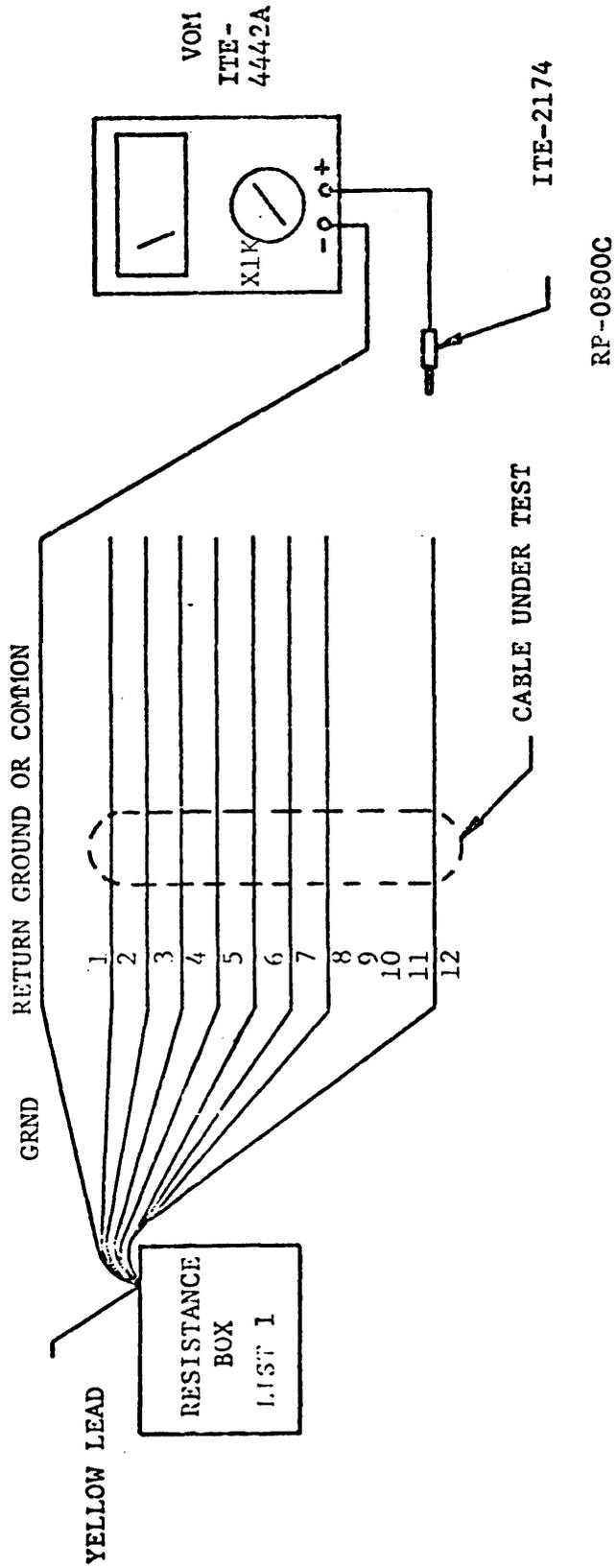


FIGURE 2

NOTES: 1. Where feasible leads should be connected after identification.

2. The common return lead if used was the first lead to be identified.

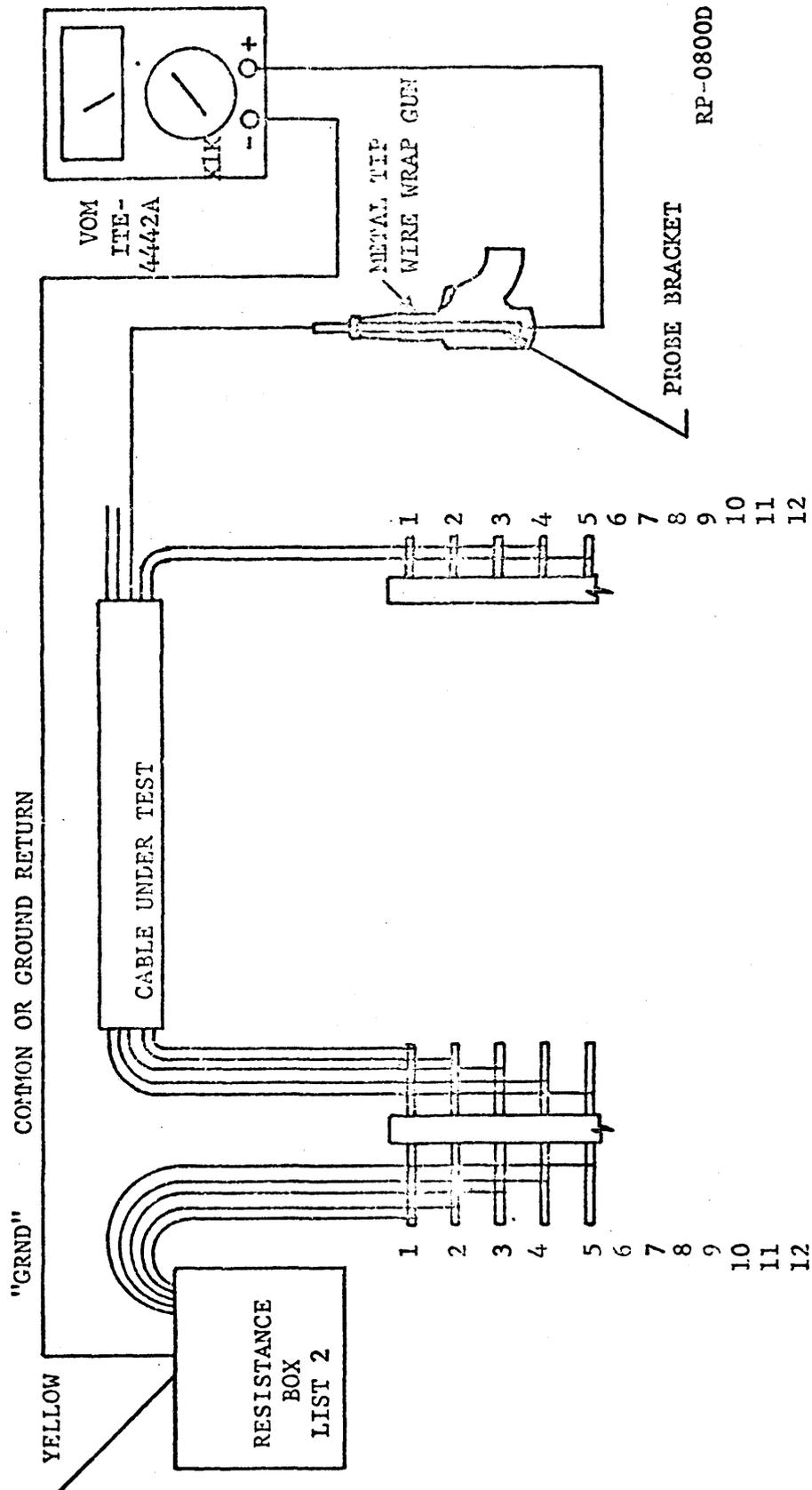


FIGURE 3