instruction sheet

FOR THE HEATHKIT HIGH VOLTAGE PROBE MODEL NO. 336

PARTS LIST

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>432-1</td>
<td>1</td>
<td>Connector</td>
</tr>
<tr>
<td>476-2</td>
<td>1</td>
<td>Probe body</td>
</tr>
<tr>
<td>2-47</td>
<td>1</td>
<td>1090 meghm resistor</td>
</tr>
<tr>
<td>250-6</td>
<td>1</td>
<td>Hex collar screw</td>
</tr>
<tr>
<td>260-1</td>
<td>1</td>
<td>Alligator clip</td>
</tr>
<tr>
<td>258-2</td>
<td>1</td>
<td>Tip spring</td>
</tr>
<tr>
<td>258-3</td>
<td>1</td>
<td>Body spring</td>
</tr>
<tr>
<td>70-1</td>
<td>1</td>
<td>Insulator sleeve</td>
</tr>
<tr>
<td>438-3</td>
<td>1</td>
<td>Phone plug</td>
</tr>
<tr>
<td>341-1</td>
<td>1</td>
<td>Length black test lead</td>
</tr>
<tr>
<td>341-2</td>
<td>1</td>
<td>Length red test lead</td>
</tr>
<tr>
<td>595-490</td>
<td>1</td>
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NOTE: HANDLE THE 1090 MEGOHM RESISTOR WITH CARE.

ASSEMBLY INSTRUCTIONS

( ) Insert the resistor and body spring-insulator sleeve assembly into the probe body with the resistor toward the tip. Refer to the accompanying drawing.

( ) Strip 1/4" of insulation from both ends of both test leads.

( ) Unscrew the cap from the phone plug and insert one end of each test lead through the cap as shown. Solder the red test lead to the center lug, and solder the black test lead to the outside lug.

( ) Replace the cap on the phone plug.

This completes the assembly. Connect the probe to your VTVM in place of the regular DC test probe.
For VTVM's with 3v Full Scale Range

ASSEMBLING THE HEATHKIT NO. 336 HIGH VOLTAGE PROBE KIT

HANDLE THE 1000 MEGOHM RESISTOR WITH CARE AS OUTLINED IN THE NOTE PACKED WITH THIS PART.

Remove the screw from one end, and replace with the collar screw. Screw the body spring onto the long part of the collar screw. Slip the insulator sleeve over the body spring, and slip this assembly into the probe body with the resistor towards the tip.

Assemble the cable as shown, by soldering the test lead to the proper lug on the phone plug. Then replace the bakelite cap on the phone plug. Now solder the test lead to the eyelet in the connector.

Screw the test lead assembly to the probe body, thus compressing the body spring, and insuring proper contact between resistor and tip, and between spring and test lead assembly.

This test probe, when used with a standard 11 megohm input resistance VTVM, will increase the voltage ranges by a factor of 100.

Connect the probe to the VTVM in place of the regular DC test probe.

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<td>220-6</td>
<td>Hex Collar Screw</td>
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<td>Body Spring</td>
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<td>Heavy Test Lead</td>
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<td>70-1</td>
<td>Insulator Sleeve</td>
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<td>Phone Plug</td>
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CAUTION: HIGH VOLTAGES ARE EXTREMELY DANGEROUS. NEVER MEASURE DC VOLTAGES IN EXCESS OF 30,000 VOLTS.

This probe is designed to permit highly voltage measurements to be made as safely as possible.

ALWAYS MAKE SURE THAT THE GROUND CLIP IS CONNECTED BETWEEN THE CHASSIS OF THE UNIT UNDER TEST AND THE VTVM, AND THAT THE PROBE IS CONNECTED TO THE VTVM.

Wherever possible, contact the high-voltage by hooking the tip spring to the terminal under test. This should be done with the power turned off. Then without touching the probe, turn power on, take the reading, turn the power off, carefully discharge any high-voltage condensers which may be in the circuit, and remove the probe from the circuit.

While the conductors inside the handle and the test lead assembly never carry more than 300 volts when the probe is properly connected, THESE PARTS WILL BE EXPOSED TO THE FULL 30,000 VOLTS, IF NOT CONNECTED TO THE VTVM.

All DC ranges on the VTVM are now multiplied by 100, thus the 300 volt range becomes the 30,000 volt range, and the 100 Volt range becomes the 10,000 Volt range.

—NEVER USE THE PROBE ON DC VOLTAGES ABOVE 30,000 VOLTS.

High voltages up to 30,000 Volts DC, as encountered in television receivers, may be applied to this test probe.

This probe increases the input resistance of the meter to 1100 megohms. On the 3 Volt position of the range switch a full scale reading of 300 Volts is obtained. This permits measurements to be made in high resistance circuits with negligible loading.

WARRANTY

The Heath Company limits its warranty on any part supplied with any Heathkit (except tubes, meters, and rectifiers, where the original manufacturer's guarantee only applies) to the replacement within three (3) months of said part which, when returned with prior permission, postpaid, was in the judgment of the Heath Company, defective at the time of sale.

The assembly is urged to follow the instructions exactly as provided. The Heath Company assumes no responsibility nor liability for any damages or injuries sustained in the assembly of the device or in the operation of the completed instrument.

HEATH COMPANY
Benton Harbor, Michigan
USING THE HIGH VOLTAGE PROBE

CAUTION: HIGH VOLTAGES ARE EXTREMELY DANGEROUS. NEVER MEASURE DC VOLTAGES IN EXCESS OF 30,000 VOLTS.

This probe is designed to permit high voltage measurements to be made as safely as possible.

ALWAYS MAKE SURE THAT THE GROUND CLIP IS CONNECTED TO THE CHASSE OF THE UNIT UNDER TEST AND THAT THE PROBE IS CONNECTED TO THE VTVM.

Wherever possible, contact the high voltage by hooking the tip spring to the terminal under test. This should be done with the power turned off. Then without touching the probe, turn power on, take the reading, turn the power off, carefully discharge any high voltage capacitors which may be in the circuit, and remove the probe from the circuit.

While the conductors inside the handle and the test lead assembly never carry more than 300 volts when the probe is properly connected, THESE PARTS WILL BE EXPOSED TO THE FULL 30,000 VOLTS, IF NOT CONNECTED TO THE VTVM.

When the test probe is connected to a VTVM with the standard input resistance of 11 megohms, all voltage ranges will be increased by a factor of X100. Thus a 100 volt range becomes a 10,000 volt range, a 150 volt range becomes a 15,000 volt range, and a 300 volt range becomes a 30,000 volt range.

NOTE: Although multiplying a 500 volt range by 100 gives a range of 50,000 V, never use the probe on DC voltages above 30,000 volts.

This probe increases the input resistance of the VTVM to 1100 megohms. This permits measurements to be made in high resistance circuits with negligible loading. This high input resistance can even be used with lower voltages by using a 1.5 volt, 3 volt, or 5 volt range of the VTVM; the 1.5 volt range would become a 150 volt range, the 3 volt range would become a 300 volt range, and the 5 volt range would become a 500 volt range.

WARRANTY

The Heath Company warrants that the parts supplied by the Company shall be free of defects in material and workmanship under normal conditions of use and service. The obligation of Heath with respect to replacement of goods is limited to the cost of replacing the repaired or reconditioned parts or the repair, provided such repair or replacement comes within the terms of this warranty.

The foregoing warranty extends only to the original buyer and is expressly in lieu of all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. In no event shall Heath be liable for any consequential damages or incidental damages, including, but not limited to, injury to persons or property or damage to the goods purchased or components thereof. The foregoing warranty shall be deemed null and void if said goods are altered or modified in any manner contrary to the instructions contained herein.

This warranty applies only to Heath products and is not extendable to parts within the control of the original buyer and is not extendable to parts within the control of the original buyer unless such parts are purchased by the original buyer directly from Heath. The original buyer is responsible for the proper use and maintenance of the goods purchased.

HEATH COMPANY

4-19-68
For VTVMS with 1.5v Full Scale Range

ASSEMBLING THE HEATHKIT NO. 336 HIGH VOLTAGE PROBE KIT

HANDLE THE 1090 MEGOHM RESISTOR WITH CARE
AS OUTLINED IN THE NOTE PACKED WITH THIS
PART.

Remove the screw from one end, and replace with the
collar screw. Screw the body spring onto the long part
of the collar screw. Slip the insulator sleeve over the
body spring, and slip this assembly into the probe body
with the resistor towards the tip.

Assemble the cable as shown, by soldering the test lead
to the proper lug on the phone plug. Then replace the
 bakelite cap on the phone plug. Now solder the test lead
to the eyelet in the connector.

Screw the test lead assembly to the probe body, thus
compressing the body spring, and insuring proper con-
tact between resistor and tip, and between spring and
test lead assembly.

This test probe, when used with a standard 11 megohm
input resistance VTVM, will increase the voltage ranges
by a factor of 100.

Connect the probe to the VTVM in place of the regular
DC test probe.

CAUTION: HIGH VOLTAGES ARE EX-
TREMELY DANGEROUS. NEVER MEA-
SURE DC VOLTAGES IN EXCESS OF
30,000 VOLTS.

This probe is designed to permit high vol-
tage measurements to be made as safely as
possible.

ALWAYS MAKE SURE THAT THE GROUND
CLIP IS CONNECTED BETWEEN THE
CHASSIS OF THE UNIT UNDER TEST AND
THE VTVM, AND THAT THE PROBE IS
CONNECTED TO THE VTVM.

Wherever possible, contact the high-voltage
by hooking the tip spring to the terminal un-
der test. This should be done with the power
turned off. Then without touching the probe,
turn power on, take the reading, turn the
power off, carefully discharge any high vol-
tage condensers which may be in the circuit,
and remove the probe from the circuit.

While the conductors inside the handle and
the test lead assembly never carry more
than 300 volts when the probe is properly
connected, THESE PARTS WILL BE EX-
POSED TO THE FULL 30,000 VOLTS, IF
NOT CONNECTED TO THE VTVM.

All DC ranges on the VTVM are now multiplied by 100,
thus the 150 volt range becomes the 15,000 volt range.
ALTHOUGH MULTIPLYING THE 500V RANGE BY 100
GIVES 50,000V, NEVER USE THE PROBE ON DC
VOLTAGES ABOVE 30,000 VOLTS.

High voltages up to 30,000 Volts DC, as encountered in
 television receivers, may be applied to this test probe.

This probe increases the input resistance of the meter
to 1100 megohm. On the 5 Volt position of the range
switch a full scale reading of 500 Volts is obtained. This
permits measurements to be made in high resistance
circuits with negligible loading.

WARRANTY

The Heath Company limits its warranty on any part sup-
plied with any Heathkit (except tubes, meters, and rec-
tifiers, where the original manufacturer’s guarantee only
applies) to the replacement within three (3) months of
said part which, when returned with prior permission,
paid, was in the judgment of the Heath Company, de-
fective at the time of sale.

The assembler is urged to follow the instructions exact-
ly as provided. The Heath Company assumes no respon-
sibility for any damages or injuries sustained in the
assembly of the device or in the operation of the
completed instrument.

HEATH COMPANY
Benton Harbor, Michigan