

HEATHKIT[®] MANUAL



HEATH COMPANY • BENTON HARBOR, MICHIGAN

Heathkit® Manual

for the

AUDIO LOAD

Model ID-5252

595-1844-01

HEATH COMPANY
BENTON HARBOR, MICHIGAN 49022

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PARTS LIST

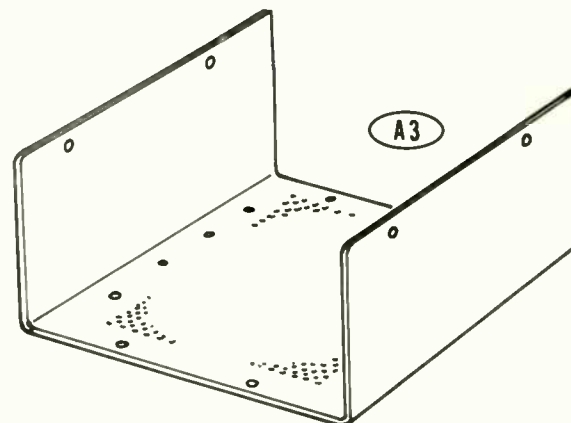
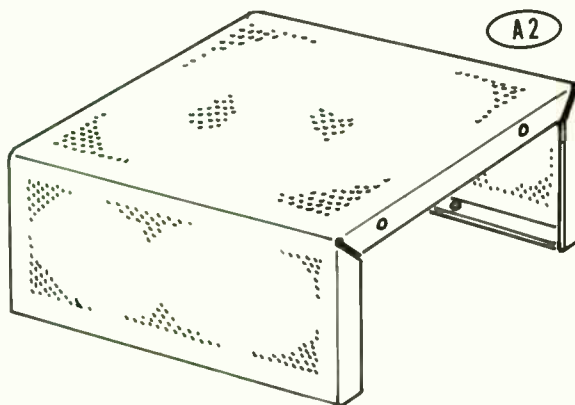
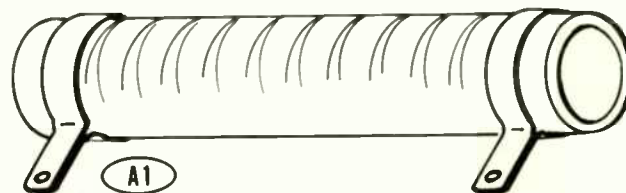
Check each part against the following list. The key numbers correspond to the numbers on the Parts Pictorial. Parts may vary slightly from the Illustration; only the hardware is shown actual size.

Some parts are packaged in containers with the part number marked on the outside. Except for the initial parts check, keep these parts in their containers so they can be easily identified when they are called for in the assembly steps. Some parts packages may also have a "171-" or a "172-" number that is used only for packaging purposes. These numbers do not appear in the Manual "Parts List". Save all packaging material until all parts have been located.

Never use a "171-" or "172-" number if you must order replacement parts. Use only the numbers listed in the Parts List for this purpose.

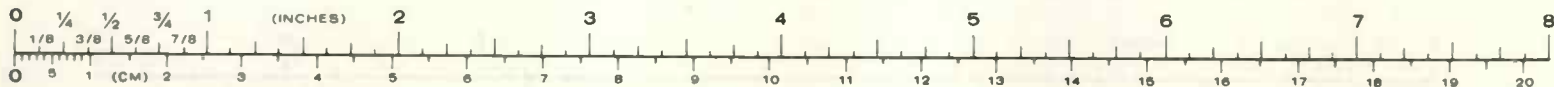
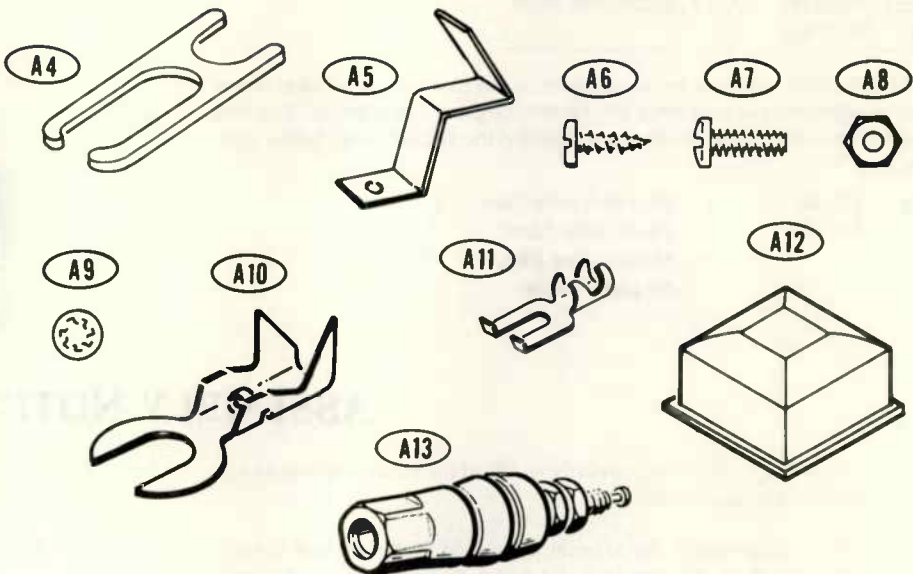
To order a replacement part, use the Parts Order Form furnished with this kit, or one of those at the rear of the Manual. If a Parts Order Form is not available, refer to "Replacement Parts" inside the rear cover of this Manual. For pricing information, refer to the separate "Heath Parts Price List."

KEY No.	HEATH Part No.	QTY.	DESCRIPTION
A1	3-1-99	4	8 Ω , 1%, 60-watt, wire-wound resistor
A2	90-1161	1	Cabinet
A3	90-1162	1	Chassis



KEY No.	HEATH Part No.	QTY.	DESCRIPTION
A4	212-22	5	Connectors
A5	204-2144	8	Bracket
A6	250-155	8	#6 × 3/8" sheet metal screw
A7	250-381	8	6-32 × 3/8" screw
A8	252-3	8	6-32 nut
A9	254-1	8	#6 lockwasher
A10	259-7	8	Large spade lug
A11	259-22	8	Small spade lug
A12	261-44	4	Foot
	340-11	4'	Bare wire
	347-13	12'	Cable
A13	426-3	4	Black binding post
A13	426-4	4	Red binding post
	490-5	1	Nut starter

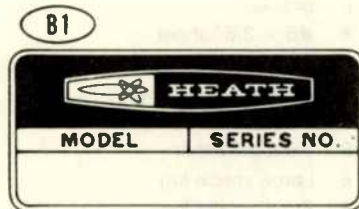
Solder



KEY	HEATH	QTY.	DESCRIPTION
No.	Part No.		

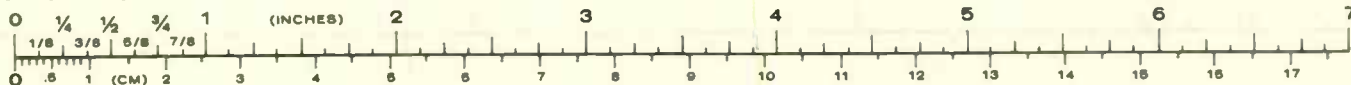
NOTE: Be sure you refer to the numbers on the blue and white label in any communications you may have with Heath Company about this kit. You may want to write the model and series numbers in the illustration for future reference.

B1	391-34	1	Blue and white label
	597-260	1	Parts Order Form
		1	Manual (See Page 1 for part number)



ASSEMBLY NOTES

- Follow the instructions carefully and read the entire step before you perform the operation.
- The illustrations in the Manual are called Pictorials and Details. Pictorials show the overall operation for a group of assembly steps; Details generally illustrate a single step. When you are directed to refer to a certain Pictorial "for the following steps," continue using that Pictorial until you are referred to another Pictorial for another group of steps.
- Most kits use a separate "Illustration Booklet" that contains illustrations (Pictorials, Details, etc.) that are too large for the Assembly Manual. Keep the "Illustration Booklet" with the Assembly Manual. The illustrations in it are arranged in Pictorial number sequence.
- Position all parts as shown in the Pictorials.



STEP-BY-STEP ASSEMBLY

Refer to Pictorial 1 (in the Illustration Booklet) for the following steps.

- () Mount a foot on the bottom of the chassis at each corner. Remove the protective paper and press each foot into place 1/4" from each edge as shown.
- () Mount a black binding post at hole A as shown. First remove the lower base. Then position the flat as shown, install the binding post, and replace the lower base. Tighten both nuts securely.
- () In the same manner, mount black binding posts at holes B, C, and D.
- () Mount red binding posts at holes E, F, G, and H.

NOTE: In the following steps, handle the resistors carefully and position them with the lugs away from the brackets. Use the nut starter to hold 6-32 nuts and start them on screws.

- () Insert the formed end of a bracket into the opening in each end of an 8 Ω resistor and press it into place.
- () Mount a resistor at holes J and K with two 6-32 \times 3/8" screws, two #6 lockwashers, and two 6-32 nuts.
- () Mount the other three 8 Ω resistors in the same manner.

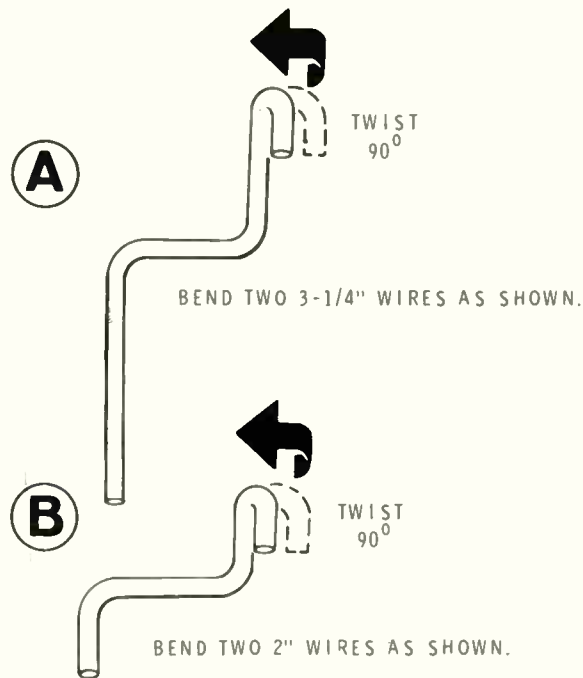
Refer to Pictorial 2 (in the Illustration Booklet) for the following steps.

- () Straighten the bare wire and cut two 8-1/4" lengths.
- () Refer to Part A of Detail 2A and form the two 8-1/4" bare wires to fit within the outline. The dashed outline shows the wire before the loop is twisted 90°.

NOTES:

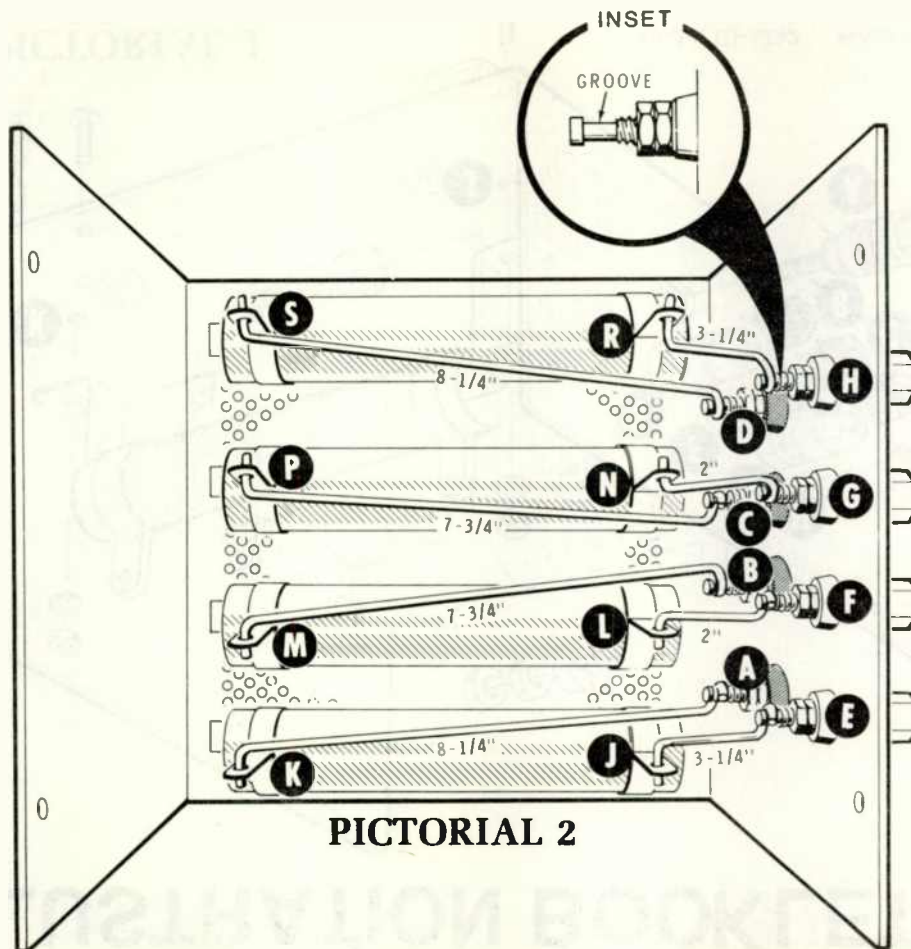
1. In the following steps, position the prepared wires as shown in the Pictorial.
2. For each wire, securely tighten the formed loop on the binding post grooves (see the inset drawing) and connect the other end to the resistor lug. Be sure the wires do not touch each other or the resistor body. You may have to adjust the wires slightly as you install them.
3. Solder both ends of each wire, as you install it. Use at least a 25-watt soldering iron and enough solder to fill the lug holes. It may help if you turn the unit on its side when you solder the lugs.

- () Connect an 8-1/4" wire between binding post A and lug K.
- () Connect an 8-1/4" wire between binding post D and lug S.
- () Refer to Part B of Detail 2A, cut two 7-3/4" lengths of bare wire, and form them to fit within the outline.
- () Connect a 7-3/4" wire between binding post B and lug M.
- () Connect a 7-3/4" wire between binding post C and lug P.
- () Refer to Part A of Detail 2B, cut two 3-1/4" lengths of bare wire, and form them to fit within the outline.
- () Connect a 3-1/4" wire between binding post E and lug J.
- () Connect a 3-1/4" wire between binding post H and lug L.
- () Refer to Part B of Detail 2B, cut two 2" lengths of bare wire, and form them to fit within the outline.
- () Connect a 2" wire between binding post F and lug L.
- () Connect a 2" wire between binding post G and lug N.
- () Adjust each wire so it is at least 1/8" from any other wire or the resistor body.

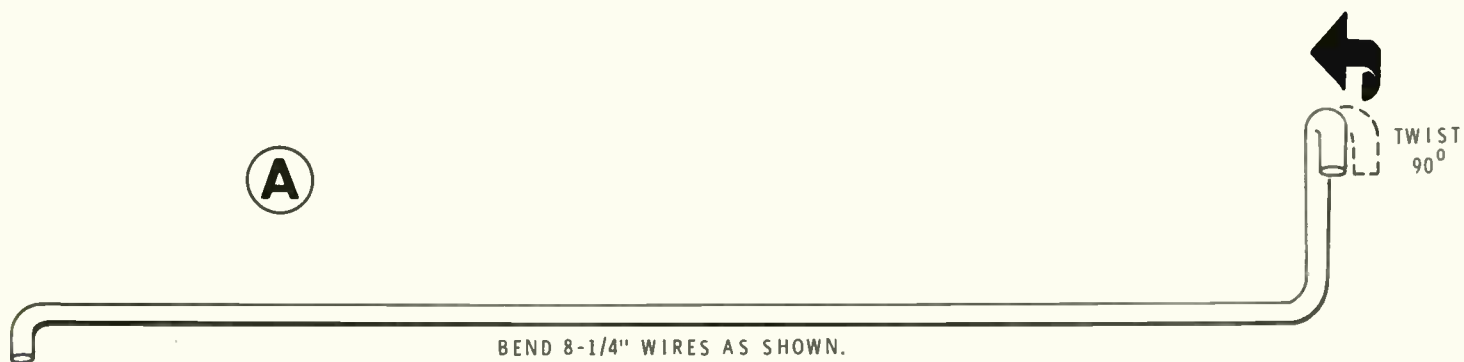


Detail 2B

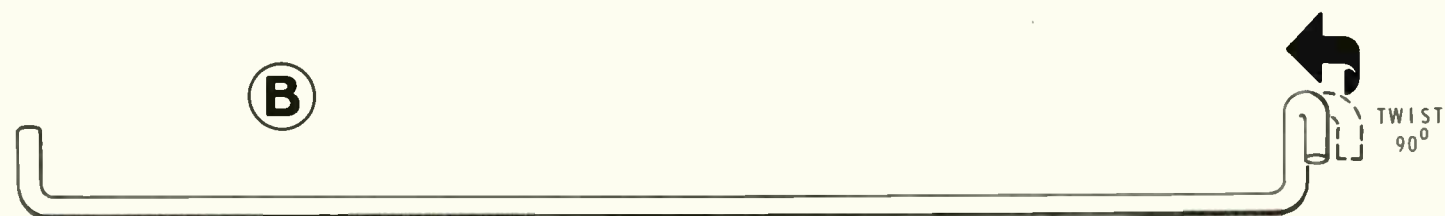




PICTORIAL 2



BEND 8-1/4" WIRES AS SHOWN.

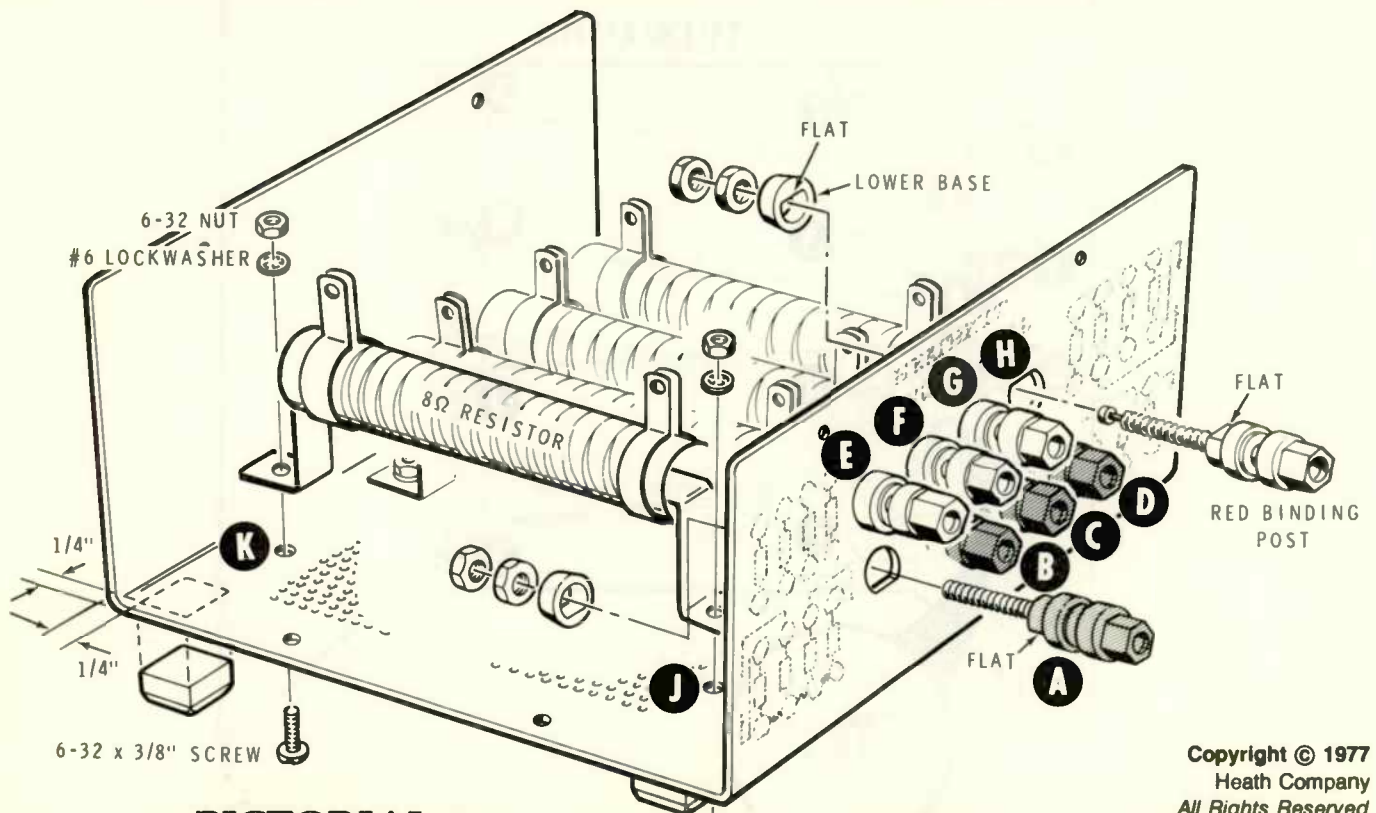


BEND 7-3/4" WIRES AS SHOWN.

Detail 2A

ILLUSTRATION BOOKLET

Part of 595-1844-01



PICTORIAL 1

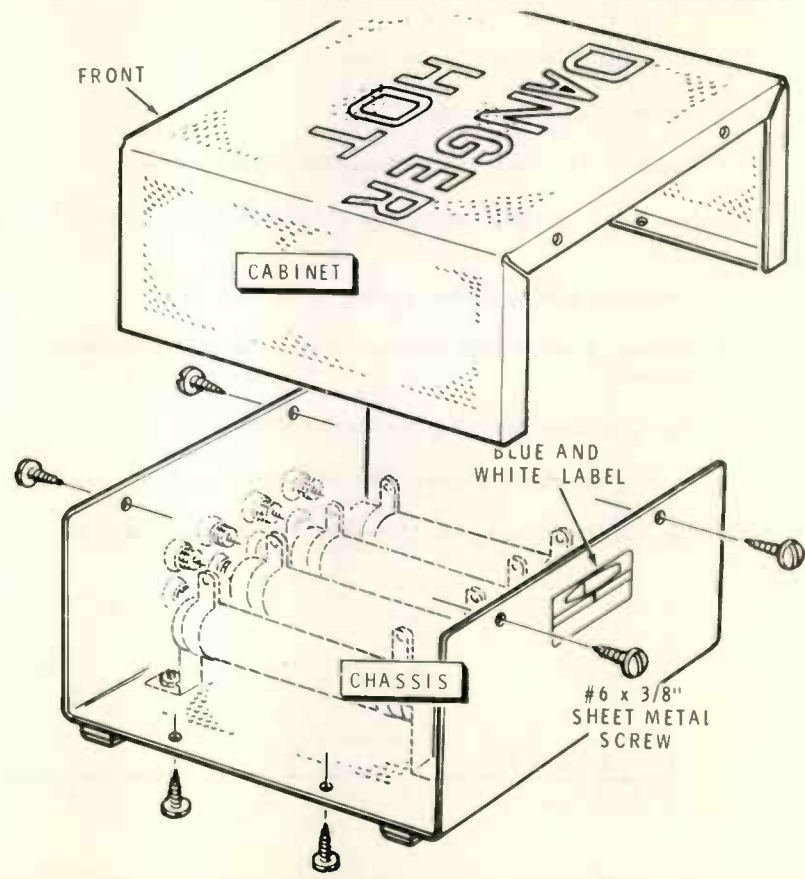
Model ID-5252

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Refer to Pictorial 3 for the following steps.

- () Mount the cabinet on the chassis as shown with eight #6 x 3/8" sheet metal screws.
- () Carefully peel away the backing paper from the blue and white identification label. Then press the label onto the chassis rear panel as shown. Refer to the numbers on this label in any communications you have with the Heath Company about this kit.



PICTORIAL 3

Refer to Pictorial 4 for the following steps.

- () Cut four 3' lengths of cable.
- () Remove 3" of outer insulation from each end of the cable.
- () Remove 1/4" of insulation from the end of each lead at one end of a cable.
- () Install two small spade lugs on this end of the cable.
- () Remove 1/8" of insulation from the end of each lead at the other end of the cable.
- () Install two large spade lugs on this end of the cable.
- () In the same manner, prepare three additional cables.

This completes the "Step-by-Step Assembly" section of your Manual.

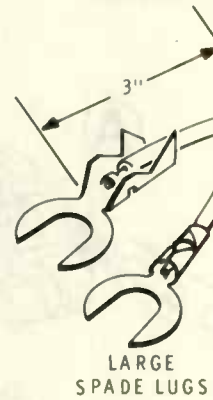


① BEND THESE TABS DOWN

② SOLDER HERE.



SMALL
SPADE LUGS



PICTORIAL 4

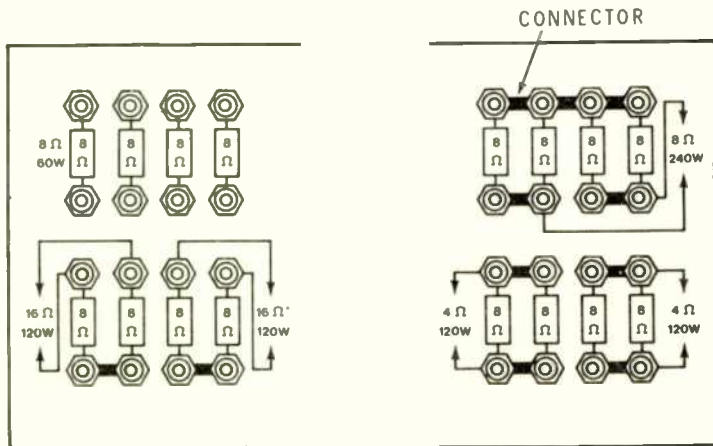
APPLICATIONS

WARNING: The cabinet top temperature may approach 231° Fahrenheit (111° Celsius) at full load. Do not place equipment on this cabinet or obstruct the free air circulation.

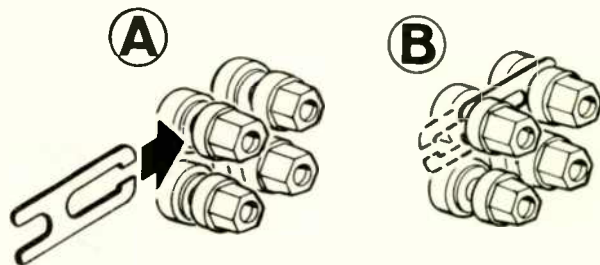
The ID-5252 Audio Load consists of four 8 Ω, 60-watt, precision resistors that will provide 2, 4, 8, 16, or 32 Ω loads. Both ends of the resistors are connected to the 5-way binding posts so you can easily make series or parallel combinations with the connectors included in your kit. The most

frequently used combinations, shown below in Pictorial 5, are screened on the chassis. Use the connectors as shown in Detail 5A. Pliers may be helpful to fit the connectors on the binding posts.

Use the cables provided for minimum line loss, and place the unit where the air can circulate through it freely. Use the banana jacks when you connect a scope or a meter, etc.



PICTORIAL 5



Detail 5A

IN CASE OF DIFFICULTY

Most of the kits that are returned for repair do not function properly due to poor connections and soldering. This is especially true in this unit, since heating and cooling cycles may fatigue a poor solder connection. Therefore, you can eliminate many troubles by carefully inspecting the connections to make sure they are soldered properly. Resolder any doubtful connections.

In any case where you are unable to resolve a difficulty, refer to "Customer Service" on the inside rear cover of this Manual. Your Warranty is located inside the front cover.

SPECIFICATIONS

Available Load Combinations	4	8 Ω loads @ 60 watts each.
(All are 1% Resistors)	2	16 Ω loads @ 120 watts each.
	2	4 Ω loads @ 120 watts each.
	1	32 Ω load @ 240 watts.
	1	2 Ω load @ 240 watts.
	1	8 Ω load @ 240 watts.
Reactance		Less than 10% @ 100 kHz.
Terminals		5-way Binding Posts.
Leads		Four 3-foot lengths, two #12 conductors, spade lug terminations.
		Five connectors.
Dimensions		9" wide \times 4" high \times 9" deep (22.8 cm W \times 10.16 cm H \times 22.8 cm D.)
Weight		5 lbs. (2.26 kg.).

The Heath Company reserves the right to discontinue products and to change specifications at any time without incurring any obligation to incorporate new features in products previously sold.

FOR PARTS REQUESTS ONLY

- Be sure to follow instructions carefully.
- Use a separate letter for all correspondence.
- Please allow 10 - 14 days for mail delivery time.

SEND TO:

HEATH COMPANY
 BENTON HARBOR
 MICHIGAN 49022
ATTN: PARTS REPLACEMENT
 Phone (Replacement parts only):
 616 982-3571

DO NOT WRITE IN THIS SPACE

INSTRUCTIONS

- Please print all information requested.
- Be sure you list the correct **HEATH** part number exactly as it appears in the parts list.
- If you wish to prepay your order, mail this card and your payment in an envelope. Be sure to include 10% (25¢ minimum, \$3.50 maximum) for insurance, shipping and handling. Michigan residents add 4% tax.

Total enclosed \$ _____

- If you prefer COD shipment, check the COD box and mail this card. COD

NAME _____
 ADDRESS _____
 CITY _____
 STATE _____ ZIP _____

The information requested in the next two lines is not required when purchasing nonwarranty replacement parts, but it can help us provide you with better products in the future.

Model # _____ Invoice # _____

Date Purchased _____ Location Purchased _____

LIST HEATH PART NUMBER	QTY	PRICE EACH	TOTAL PRICE
TOTAL FOR PARTS			
HANDLING AND SHIPPING			
MICHIGAN RESIDENTS ADD 4% TAX			
TOTAL AMOUNT OF ORDER			

CUSTOMER SERVICE

REPLACEMENT PARTS

Please provide complete information when you request replacements from either the factory or Heath Electronic Centers. Be certain to include the HEATH part number exactly as it appears in the parts list.

Replacement parts are maintained specifically to repair Heath products. Parts sales for other reasons will be declined.

ORDERING FROM THE FACTORY

Print all of the information requested on the parts order form furnished with this product and mail it to Heath. For telephone orders (parts only) dial 616 982-3571. If you are unable to locate an order form, write us a letter or card including:

- Heath part number
- Model number
- Date of purchase
- Location purchased or invoice number
- Nature of the defect
- Your payment or authorization for COD shipment of parts not covered by warranty

Mail letters to: Heath Company
Benton Harbor
MI 49022
Attn: Parts Replacement

Retain original parts until you receive replacements. Parts that should be returned to the factory will be listed on your packing slip.

OBTAINING REPLACEMENTS FROM HEATH ELECTRONIC CENTERS

For your convenience, "over the counter" replacement parts are available from the Heath Electronic Centers listed in your catalog. Be sure to bring in the original part and purchase invoice when you request a warranty replacement from a Heath Electronic Center.

TECHNICAL CONSULTATION

Need help with your kit? — Self-Service? — Construction? — Operation? — Call or write for assistance, you'll find our Technical Consultants eager to help with just about any technical problem except "customizing" for unique applications.

The effectiveness of our consultation service depends on the information you furnish. Be sure to tell us:

- The Model number and Series number from the blue and white label.
- The date of purchase.
- An exact description of the difficulty.
- Everything you have done in attempting to correct the problem.

Also include switch positions, connections to other units, operating procedures, voltage readings, and any other information you think might be helpful.

Please do not send parts for testing, unless this is specifically requested by our Consultants.

Hints: Telephone traffic is lightest at midweek — please be sure your Manual and notes are on hand when you call.

Heathkit Electronic Center facilities are also available for telephone or "walk-in" personal assistance.

REPAIR SERVICE

Service facilities are available, if they are needed, to repair your completed kit. (Kits that have been modified, soldered with paste flux or acid core solder, cannot be accepted for repair.)

If it is convenient, personally deliver your kit to a Heathkit Electronic Center. For warranty parts replacement, supply a copy of the invoice or sales slip.

If you prefer to ship your kit to the factory, attach a letter containing the following information directly to the unit:

- Your name and address.
- Date of purchase and invoice number.
- Copies of all correspondence relevant to the service of the kit.
- A brief description of the difficulty.
- Authorization to return your kit COD for the service (and shipping charges. (This will reduce the possibility of delay.)

Check the equipment to see that all screws and parts are secured. (Do not include any wooden cabinets or color television picture tubes, as these are easily damaged in shipment. Do not include the kit Manual.) Place the equipment in a strong carton with at least THREE INCHES of resilient packing material (shredded paper, excelsior, etc.) on all sides. Use additional packing material where there are protrusions (control sticks, large knobs, etc.). If the unit weighs over 15 lbs., place this carton in another one with 3" 4" of packing material between the two.

Seal the carton with reinforced gummed tape, tie it with a strong cord, and mark it "Fragile" on at least two sides. Remember, the carrier will not accept liability for shipping damage if the unit is insufficiently packed. Ship by prepaid express, United Parcel Service, or insured Parcel Post to:

Heath Company
Service Department
Benton Harbor, Michigan 49022

HEATH

Schlumberger

HEATH COMPANY • BENTON HARBOR, MICHIGAN
THE WORLD'S FINEST ELECTRONIC EQUIPMENT IN KIT FORM

MADE IN U.S.A.