Heathkit® Manual for the

RS-232C ACCESSORY
Model IDA-5001-3

Please perform the following steps and assemble your 3-ring binder before you assemble your kit. Do not unpack your kit until you are instructed to do so.

( ) Locate the envelope marked "Binder Hardware," and remove the hardware from it.

( ) Refer to Figure 1 and position the binder cover with the large hole as shown.

( ) Locate the 3-ring assembly.

( ) Determine which side of the rings unhook. Then position the 3-ring assembly as shown and mount it to the cover with the binder hardware: two 6-32 x 3/8" nylon screws, two flat washers, and two 6-32 nuts. Do not overtighten the hardware.
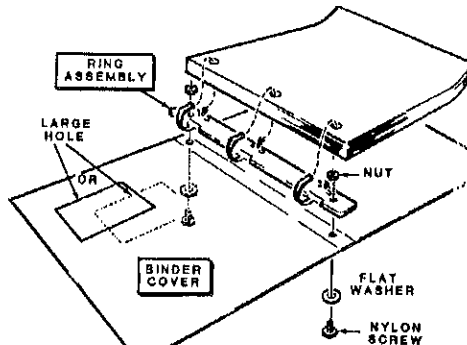

Figure 1

595-4002-01

RS-232C ACCESSORY
Model IDA-5001-3

595-4002-01

Table Of Contents

INTRODUCTION

The RS-232C Accessory, Model ID-5001-3, is used to send weather data, as established by the ID-5001 Weather Computer, to a computer using the standard RS-232C serial format.

PARTS LIST

Unpack your kit and check each part against the following list. The key numbers correspond to the numbers on the "Parts Pictorial." Return any part that is in an individual envelope back into the envelope after you have identified it until that part is called for in a step. Do not throw away any packing material until you account for all the parts.

To order a replacement part, always include the PART NUMBER. Use the Parts Order Form furnished with this kit. If a Parts Order Form is not available, refer to "Replacement Parts" inside the rear cover of this Manual.

A replacement part may look slightly different than the original part, or may have different printing on it. In any case, the performance of the replacement part will meet or exceed the requirements of the original part. For example: a 15-volt capacitor (10 µF, 15 V) may be replaced with a 25-volt capacitor (10 µF, 25 V).

KEY No.	HEATH Part No.	QTY.	DESCRIPTION	CIRCUIT Comp. No.

RESISTORS

All resistors have four color bands. The last band is a tolerance band (gold for 5%) which will not be called out. All resistors are rated at 1/4-watt.

KEY	HEATH	QTY.	DESCRIPTION	CIRCUIT
A1	6-103-12	1	10 kΩ (brn--blk-org) resistor	R474
A1	6-223-12	1	22 kΩ (red-red-org) resistor	R473
A1	6-333-12	1	33 kΩ (org-org-org) resistor	R478

CAPACITOR — CHOKE

KEY	HEATH	QTY.	DESCRIPTION	CIRCUIT
A2	21-769	5	.01 µF (103) axial-lead ceramic capacitor	C429 - C433
A3	235-229	5	35 µH choke	L402 - L406

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INTEGRATED CIRCUITS (ICs)

NOTE: Transistors and integrated circuits may be marked for identification in any one of the following four ways:

1. Part number.
2. Type number. (For integrated circuits, this refers only to the numbers and letters shown in **BOLD** print. Disregard any other numbers or letters shown on the IC.)
3. Part number and type number.
4. Part number with a type number other than the one shown.

B1	443-794	1	MC75188 or MC1488	U415
B1	443-795	1	MC75189 or MC1489	U413
B1	443-1394	1	**84C42**	U414

HARDWARE

C1	252-2	2	4-40 nut
C2	254-9	2	#4 lockwasher
C3	255-757	2	Hex spacer

CONNECTORS— SOCKETS

D1	432-1028	1	RS-232 connector
D2	432-1304	1	7-hole socket
D3	434-298	2	14-pin IC socket
D3	434-253	1	40-pin IC socket
D4	432-1142	7	Spring connector (includes one extra)

PINS — PLUGS

E1	432-1031	8	Gold pin (includes one extra)
E2	432-1281	1	7-pin plug
E3	438-55	1	Polarizing plug

KEY No.	HEATH Part No.	QTY.	DESCRIPTION	CIRCUIT Comp. No.

MISCELLANEOUS

F1	475-35	1	Ferrite bead	
	344-96	30"	Blue wire	
	701-235	1	3-ring assembly	
F2		1	Blue and white label	
	597-4462	1	Binder cover	
	597-260	1	Parts Order Form	
		1	Manual (see front page for Part Number)	
			Solder	

BINDER HARDWARE (already assembled)

	250-357	2	Nylon screw
	252-3	2	6-32 nut
	253-14	2	Fiber flat washer
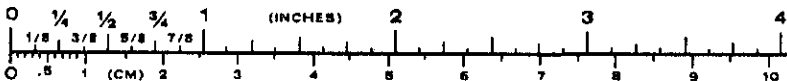
STEP-BY-STEP ASSEMBLY

NOTE: If your ID-5001 Weather Computer is assembled, perform the following "Cabinet Disassembly" procedure. If you are assembling the RS-232C Accessory with the Weather Computer, skip that section and proceed to "Main Circuit Board."

CABINET DISASSEMBLY

Refer to Pictorial 1 for the following steps.

( )   Unplug the AC line cord and disconnect the battery.

( )   Position the Weather Computer as shown in the Pictorial.

( )   Remove the seven 6-32 x 1/4" screws from the cabinet top mounting holes and remove the cabinet top. Set these aside.

NOTE: Be careful not to disturb the main circuit board control settings when you remove and work on it in the following steps.

Unplug the cable sockets from the following main circuit board plugs:

( )   P405.
( )   P409.
( )   P406.
( )   P407.

( )   Remove the two 4-40 x 1/4" screws and #4 lockwashers from the circuit board mounting brackets and set them aside.

( )   Carefully lift the main circuit board from driver circuit board plugs P204 and P205 and remove it from the unit. Then set the unit aside and place the main circuit board on your work surface .

MAIN CIRCUIT BOARD

Refer to Pictorial 2 for the following steps.

( )   Position the main circuit board with the component side facing up as shown.

NOTE: **Be careful** not to flex the pressure transducer leads whenever you solder component leads to the foil side of the circuit board. Otherwise, you could break the transducer leads. To prevent this, allow the end of the board to overhang the side of your work surface whenever you turn it over, or raise the board off the surface with a stack of magazines so the tip of the transducer clears it.

Install components at the following locations:

( )   R474: 10 kΩ (brn-blk-org) resistor.

Install .01 µF (103) axial-lead ceramic capacitors at the following five locations:

( )   C433.
( )   C432.
( )   C431.
( )   C430.
( )   C429.

( )   R473: 22 kΩ (red-red-org) resistor.

( )   R478: 33 kΩ (org-org-org) resistor.

( )   Solder the leads to the foil and cut off the excess lead lengths.

NOTE: Before you install an IC socket, make sure the pins are straight. If there is any kind of identification mark (notch, dot, arrowhead, etc,) at or near one end of the socket, place this marked end toward the index mark on the circuit board (this index mark should still be visible after you install the socket). Then start the pins into the circuit board holes.

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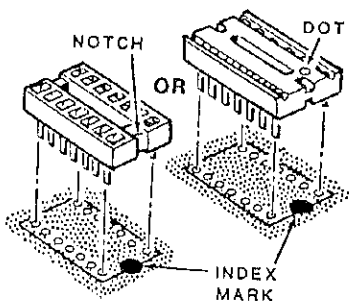
Hold the socket in place while you turn the board over and, at first, solder only two pins at diagonally opposite corners of the socket. When the solder cools, check to make sure the socket is tight against the circuit board. If not, reheat the pins while you press against the socket to reseat it. Then solder the remaining pins to the foil.

NOTE: A solder bridge may occur when you make solder connections at closely spaced foils. Therefore, after each solder step, carefully inspect the foil for solder bridges and remove any that have formed. To remove a solder bridge, hold the circuit board foil-side-down as shown, and hold the soldering iron tip between the two points that are bridged. The solder will flow down the soldering iron tip to clear the bridge.
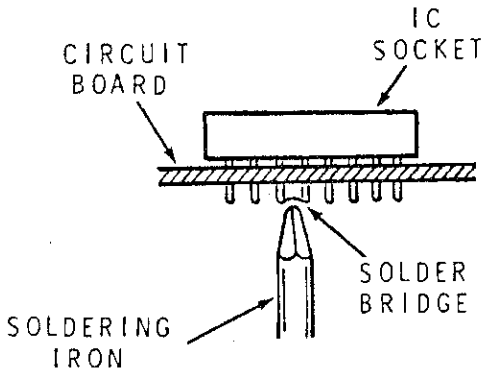
Install IC sockets at the following locations:

( )   U414: 40-pin IC socket.

( )   U413: 14-pin IC socket.

( )   U415: 14-pin IC socket.

( )   Start at either end of the 7-pin plug and remove pin 6 to make a 6-pin plug. Discard the pin.

( )   P408: Position the pin 1 end of the 6-pin plug at the pin 1 end shown on the circuit board. Insert the shorter plug pins into the circuit board holes and solder them to the foil.

Install 35 µH chokes (#235-229) at the following five locations:

( )   L406.
( )   L405.
( )   L404.
( )   L403.
( )   L402.

( )   Solder the leads to the foil and cut off the excess lead lengths.

CAUTION: Integrated circuits (ICs) are complex electrical devices that perform many complicated operations in a circuit. Read all of the following information before you install the ICs.

Some of the ICs used in this kit may be MOS (metal-oxide semiconductor) devices; these ICs are shipped in a foam pad to protect them. These are rugged and reliable devices. However, if you do not handle them properly when you remove them from the protective foam pad and install them, they can be damaged by static electricity. Other ICs may be of a type that are not susceptible to static electricity. Nevertheless, treat all ICs as if they were MOS devices, and this will help insure that no ICs will be damaged.
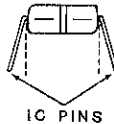
IC PINS

The pins on an IC may be bent out at an angle and thus will not line up with the holes in the IC socket. Do not try to install the IC without first bending the pins as described on the following page. This could damage the IC pins or the socket, causing intermittent contact.

Remove the IC from its protective foam pad, but do not let go of it until it is installed in its socket. Hold the IC in one hand and place your other hand on your work surface before you touch the IC to your work surface. This will equalize the static electricity between the work surface and the IC.

Very carefully roll the IC toward the pins to bend the lower pins into line. Then turn the IC over and bend the pins on the other side in the same manner.

Compare the IC to the drawing shown below. Then determine which end of the IC is the pin 1 end.
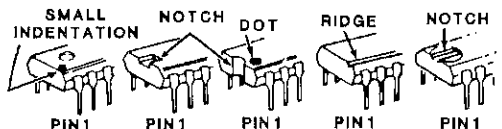
Hold the IC in one hand and the circuit board in the other. Then position the pin 1 end of the IC over the index mark on the circuit board and start the pins into the socket. Make sure that all of the pins are started; then push the IC down firmly. NOTE: An IC pin can become bent under the IC and it will look as though it is correctly installed in the socket.
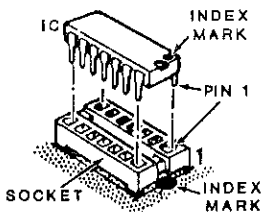
If it is ever necessary to remove an IC from its socket, use an IC lifter (if one was supplied with your kit) or a small-bladed screwdriver as shown. Push it between the IC and the socket and carefully lift the IC free. If any IC pins become bent, carefully straighten them.
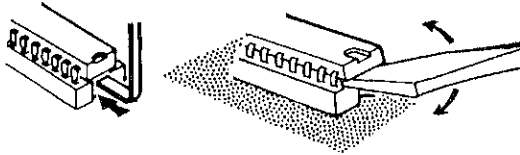
Install ICs at the following locations:

( )   U414: 84C42 IC (#443-1394).

( )   U413: MC75189 IC (#443-795).

( )   U415: MC75188 IC (#443-794).

CIRCUIT BOARD CHECKOUT

Carefully inspect the circuit board for the following possible problems:

( )   Unsoldered connections.

( )   Poor solder connections.

( )   Solder bridges between foil patterns. NOTE: Refer to the "X-Ray Views" in the Operation Manual if you are uncertain and want to see the correct foil patterns.

( )   Protruding leads which could touch together or short to the chassis when the circuit board is mounted later.

Refer to the illustrations where the parts were installed as you make the following visual checks:

( )   ICs for the proper type and installation.

Set the circuit board aside.

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RS-232C CABLE ASSEMBLY
AND INSTALLATION

Refer to Pictorial 3 for the following steps.

( )   Cut seven 3" blue wires and remove 1/8" of insulation from one end and 1/4" of insulation from the other end. Twist the fine wire strands tightly together at each end and apply a small amount of solder to the twisted strands to hold them together.

Refer to Detail 3A for the following steps.

( )   Refer to inset drawing #1 and crimp and solder spring connectors on the 1/8" prepared end of <u>six</u> of the prepared wires.

( )   Refer to inset drawing #2 and crimp and solder a gold pin on the other end of each of the six prepared wires.

( )   Remove an additional 1/8" of insulation from the 1/8" prepared end of the remaining prepared 3" blue wire. Then crimp and solder a gold pin on one end of the wire.

( )   Position a 7-hole socket with the slots facing up. Then insert each of the six spring connectors, on the ends of the blue wires, into the 7-hole socket as follows:

     1.   Position the spring connector with the small tab facing up as shown.

     2.   Insert the spring connector into its socket hole until you hear a faint click to indicate that it has latched in place. To make sure it has latched, gently pull on the wire.

( )   Hole 1.
( )   Hole 2.
( )   Hole 3.
( )   Hole 4.
( )   Hole 5.
    There is no connector at hole 6.
( )   Hole 7.

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( ) Insert a polarizing plug into socket hole 6 with the small tab facing the slot.

( ) Position the RS-232C connector with the pin 1 end as shown. The numbers are stamped on both sides of the connector body. Then insert the gold pin on the end of the separate wire into hole 1. You will hear a faint latching click as the pin latches into the connector hole.

NOTE: In each of the following steps you will insert an individual wire coming from the 7-hole socket through the ferrite bead and then into the RS-232C connector hole. Make sure to route the wire through the bead first.

Insert the gold pins into the RS-232C connector holes as follows:

( ) Wire from socket hole 1 through ferrite bead to hole 6.
( ) Wire from socket hole 2 through ferrite bead to hole 3.
( ) Wire from socket hole 3 through ferrite bead to hole 2.
( ) Wire from socket hole 4 through ferrite bead to hole 4.
( ) Wire from socket hole 5 through ferrite bead to hole 8.
( ) Wire from socket hole 7 through ferrite bead to hole 7.

If you are assembling the RS-232C accessory with the Weather Computer, return to the Weather Computer manual at this time and continue from where you left off. If your Weather Computer is already assembled, proceed to "RS-232C Installation."

RS-232C INSTALLATION

Refer again to Pictorial 3 for the following steps.

( ) If it has been installed, remove the rectangular plug at chassis hole RS-232 and discard it.

( ) Position the RS-232C connector with the pin 1 end as shown and mount it at chassis hole RS232 with two hex spacers, two #4 lockwashers, and two 4-40 nuts.

( ) Connect the free end of the blue wire coming from hole 1 of the RS-232C connector to the solder lug on the right end of terminal strip C and solder it to the lug. Do not route this wire through the ferrite bead.

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If you are assembling the RS-232C accessory with the Weather Computer, return to the Weather Computer manual and continue from where you left off. When you have completed the assembly and the "Calibration and Checkout" of the Weather Computer, return to the "Interconnect and Checkout" section in this manual.

( )   Insert main circuit board sockets S401 and S402 over display driver plugs P204 and P205 until the pins seat fully. Make sure that all the pins enter their respective holes. Then secure the board to the mounting brackets with the #4 hardware you removed earlier.

Install the indicated sockets at the following main circuit board plug locations. The sockets are polarized to fit only one way:

( )   S405 to P405.
( )   S408 to P408.
( )   S409 to P409.
( )   S406 to P406.
( )   S407 to P407. Position this socket with the slots facing up.

This completes the "RS-232C Installation." Proceed to "Interconnect and Checkout."

INTERCONNECT AND CHECKOUT

An RS-232 cable is not supplied with this kit, nor is the software you will need to operate your Weather Computer with your computer or terminal. You will need to determine the appropriate interface cable and software to use. You may use a terminal Emulation Program or write your own program.

The RS-232C Connector on the Weather Computer is wired as Data Communication Equipment (DCE). The connector pinouts are as follows:

P1	RS-232C connector
Pin 1	Chassis ground
Pin 2	Receive Data (RD)
Pin 3	Transmit (TD)
Pin 4	Clear-To-Send (CTS)
Pin 7	Signal ground
Pin 8	Data Communication Device (DCD)
Pin 6	Data Set Ready (DSR)

DCE CONNECTOR PINOUTS
(FRONT VIEW)
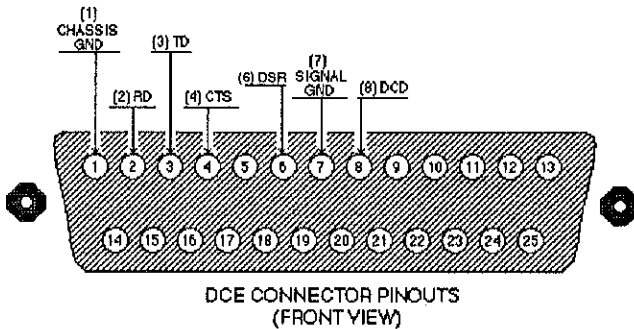
You can make your own cable, or you can purchase cable HCA-200-PC from Heath Company, which will work for any of the following computer models, regardless of their prefix letters (H, Z, HS, etc.).

Computer Model	Cable Pin Out	
	9-Pin Connector (Computer)	25-Pin Connector (Weather Computer)
159	1	8
183	2	3
184	3	2
241	4	20
248	5	1, 7
386	6	6
EZ PC AT	7	4
IBM PC AT	8	5
	9	22

You can make your own cable or purchase cable part number HCA-11 from the Heath Company if you have one of the following computers:

Computer Model	Cable Pin Out	
	DTE (Computer)	DCE (Weather Computer)
100	1	1
148	2	2
150	3	3
158	4	4
160	5	5
171	6	6
181	7	7
IBM PC XT	8	8
	20	20

If you use a terminal instead of a computer, use a straigh- through male-to-female cable, such as the Heath Company cable HCA-11.

( )   Using the appropriate interconnect cable, connect your Weather
        Computer to your computer or terminal.

( )   Plug in the Weather Computer and your terminal or computer
        and load the Terminal Emulation Program into your computer's
        drive.

After you have loaded the Terminal Emulation Program, make sure the
program is configured for the following parameters:

        Data bits: 8
        Stop bits: 1
        Parity: None
        Matching baud rates

BAUD RATE SETUP

You can set up the baud rate for the serial interface by pressing the
BAUD key. This will display the current baud rate in the time display.
The BAUD key can then be used to step through all possible baud rates.
When the desired baud rate in displayed, press ENTER to set the baud
rate to the displayed value.

NOTE: When you type the following characters, **make sure that they
are all in the designated UPPERCASE.**

( )   Type ATES and then press the RETURN key. You may see a 0 (no
        error) on the screen, or an 8 (syntax error) if you made a typing
        error in the entry. (ATES = turns on Echo.)

( )   Type ATLS and press the RETURN key. You will see OTLS on the
        screen. (ATLS = enables line feeds.)

( )   Type ATRD and press the RETURN key. You will now see the
        year, month, and date displayed on the screen (e.g. 870805)
        NOTE: The correct date will not be displayed unless you set it
        correctly on the Weather Computer at an earlier time.

( ) Type ATRT and press the RETURN key. You should see the time in hours, minutes, and seconds displayed on the screen (e.g. 104617). NOTE: The time display will be incorrect unless you set it to the correct time on the Weather Computer at an earlier time. The time will be returned in the 24 hour format even if the ID-5001 is set for the 12-hour format.

NOTE: If you wish, you can experiment with some of the other codes by referring to the "Appendix" on Page A1 in the back of this Manual. However, return to this section and complete the remaining steps after you are finished.

( ) Remove the Terminal Emulation Program disk from the computer and turn the computer (or terminal) off. Also, turn off the Weather station's power and remove the line cord plug from the AC outlet.

( ) Refer back to Pictorial 1 and mount the cabinet top on the Weather Computer with seven 6-32 x 1/4" screws as shown.

( ) Remove the backing from the blue and white label and press the label onto the bottom of the Weather Computer near the other blue and white label(s).

This completes the checkout.

IN CASE OF DIFFICULTY

NOTE: Refer to the Main Circuit Board X-Ray View" in your ID-5001 Illustration Booklet for the physical location of parts on the circuit board.

GENERAL

1. About 90% of the kits that are returned for repair do not function properly due to poor connections and soldering. Therefore, you can eliminate many difficulties by carefully inspecting each connection to make sure it is properly soldered. Reheat any doubtful connections.

2. Recheck the RS-232 wiring. It is frequently helpful to have a friend check your work. Someone who is not familiar with the unit may notice something you have consistently overlooked.

3. Check all component leads connected to the circuit board. Make sure that none of the leads make contact with other connections or components.

4. Check the value of each part. Be sure that the proper part has been wired into the circuit at each location as shown in the Pictorial diagrams and as called out in the wiring instructions.

5. Check to be sure that ICs U413, U414, and U415 are installed in their sockets correctly. Also be sure that none of the IC pins are bent under the IC body.

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

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APPENDIX

SERIAL INTERFACE COMMANDS

All commands end with a carriage return. **All characters must be in the case designated.** All commands begin with "AT" (not shown).( ) indicates optional entries with (a,b,c) indicating that only one of the characters (a, b, or c) may be entered. The ( ) themselves are never entered in these commands. If there is no response listed, the response will be "0" which means the Weather Computer received the information and no errors occurred. If you obtain an "8" indication, it means that the information was typed in wrong and you should re-enter it again.

Command	Response	Action
AC		Alarm clear. Shuts off the alarm.
ASHHMM(SS)(A,P)		Sets the time when an"A" for Alarm will be sent from the RS-232 serial interface port. Set the Alarm to HHMM or HHMSS. If SS is not entered, 0 is entered for seconds. If A or P are not entered, the time is entered in the 24-hour format.
CBH		Clear Barometer High.
CBL		Clear Barometer Low
CHIH		Clear Humidity Indoor High.
CHIL		Clear Humidity Indoor Low.
CHOH		Clear Humidity Outdoor High.
CHOL		Clear Humidity Outdoor Low.
CR		Clear Rain.
CTIH		Clear Temperature Indoor High.
CTIL		Clear Temperature Indoor Low.

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Command	Response	Action
CTOH		Clear Temperature Outdoor High.
CTOL		Clear Temperature Outdoor Low.
CWAH		Clear Wind Average High.
CWAL		Clear Wind Average Low.
CWGH		Clear Wind Gust High.
CWGL		Clear Wind Gust Low.
EC		Echo Clear. Turns off the echoing of the received characters. NOTE: This is the default setting.
ES		Echo Set. Turns on the Echoing.
LC		Line feed Clear. Sends only a CR after returning the results of a command.
LS		Line feed Set. Sends CR-LF after returning the results of a command.
RA	(W)(a)(F)	Read Alert-Warning and Fog conditions. Nothing will be displayed if the Warn, Alert, or Fog is not indicated on the Weather Computer.
RB	Bnnnn(M)	Read Barometer. "M" is present if the units are set to millibars.
RBH	<Bnnnn(M) mm(/)d	Read Barometer High. NOTE: The (:) and (/) symbols represent the mm hh(:)mm(:)ss optional time and date separator characters, respectively.
RBL	>Bnnnn(M) mm(/)dd	Read Barometer Low. The (:) and (/) symbols represent the hh(:)mm(:)ss optional time and date separator characters, respectively.
RBR	BRnnnn(M)	Read Barometer Rate (24 hour rate). nnnn=-32768 indicates no rate available. This holds true for all rate commands.
RBr	Br nnnn(M)	Current Barometer Rate.

4

Command	Response	Action
RD	yy(/)mm(/)dd	Read Date.
RHI	hnn	Read Humidity Indoor.
RHIH	<hnn mm...	Read Humidity Indoor High. NOTE: mm... = mm (/) dd hh (:) mm (:) ss
RHIL	>hnn mm...	Read Humidity Indoor Low.
RHIR	hRnn	Read Humidity Indoor Rate (24-hour).
RHIr	hrnn	Read Humidity Indoor Rate (current).
RHO	Hnn	Read Humidity Outdoor.
RHOH	<Hnn mm...	Read Humidity Outdoor High.
RHOL	>Hnn mm...	Read Humidity Outdoor Low.
RHOR	HRnn	Read Humidity Outdoor Rate (24-hour).
RHOr	Hrnn	Read Humidity Outdoor Rate (current).
RR	Rnnnnn((n)C)	Read Rain in Inches or Centimeters (cm). Decimal point 2 places from right implied on all rain readings (rain in .01 inches or .01 cm).
RRR	RRnnnnn((n)C)	Read Rain Rate
RRI	RInnnnn(C)	Read Rain Instantaneous rate.
RT	hh(:)mm(:)ss (A,P)	Read Time.
RTI	tnnn(C)	Read Temperature Indoor in degrees Fahrenheit (˚F) or Celsius (˚C).
RTIH	<tnnn(C) mm...	Read Temperature Indoor High.
RTIL	>tnnn(C) mm...	Read Temperature Indoor Low.

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Command	Response	Action
RTIR	tRnnnC)	Read Temperature Indoor Rate (24-hour).
RTIr	trnnnC)	Read Temperature Indoor Rate (current).
RTO	TnnnC)	Read Temperature Outdoor
RTOH	<TnnnC) mm...	Read Temperature Outdoor High.
RTOL	>TnnnC) mm...	Read Temperature Outdoor Low.
RTOR	TRnnnC)	Read Temperature Outdoor Rate (24-hour).
RTOr	trnnnC)	Read Temperature Outdoor Rate (current).
RW	Dn	Read Weekday (0 through 6, Monday-Sunday)
RWA	wnnn(K,L,M) nnnD	Read Wind Average. (K:Knots, L:Kilometers, M:Miles) (Wnnn = Wind Speed nnnD = Wind Direction in degrees)
RWAH	<wnnn(K,L,M) nnnD mm...	Read Wind Average High.
RWAL	>wnnn(K,L,M) nnnD mm...	Read Wind Average Low.
RWCA	cTnnnC)	Read Wind Chill Average.
RWCG	CTnnnC)	Read Wind Chill Gust.
RWG	Wnnn(K,L,M) nnnD	Read Wind Gust.
RWGH	<Wnnn(K,L,M) nnnDmm...	Read Wind Gust High.

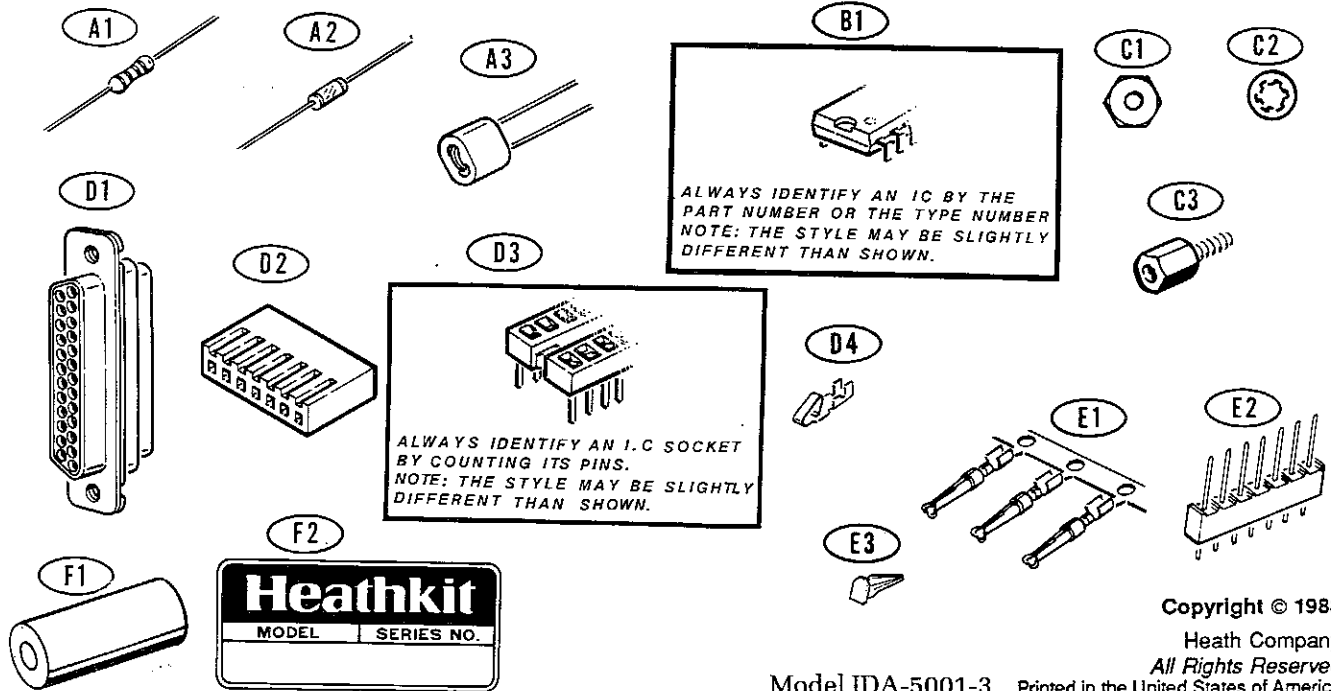**Heathkit®**

Command	Response	Action
RWGL	>Wnnn(K,L,M) nnnD mm...	Read Wind Gust Low.
SDyymmdd		Set Date.
SThhmmss(A,P)		Sets the time on the Weather Computer but does not change the format (12- or 24-hour). It does, however, determine the time format that the serial interface returns. If you do not select A or P, the time returned will be in the 24-hour format. NOTE: When you set the time in the 12-hour format, (using A or P), the hours cannot exceed 12 (i.e. 130000P is invalid).
VDc		Set the Date separator character, where "c" is the character to be placed between the date items as: yycmmcdd
VD		Clear Date separator character.
VTc		Set Time separator character as: hhcmmcss
VT		Clear time separator character.
XC(B)(H)(h)(T)		auto Xmit Clear stops auto transmission of selected items:
(t)(R)(W)(w)		B: Barometer H: Outdoor Humidity h: Indoor Humidity R: Rain T: Outdoor Temperature t: Indoor Temperature W: Wind Gust w: Wind Average
XCA		auto Xmit Clear stops auto transmission of All items.

Command	Response	Action
XSA		Auto Xmit Set of all items. Automatically transmits new information to the serial port. It only transmits when a reading changes on the Weather Computer. For example, if the outdoor temperature changes, the outdoor reading is transmitted. If the wind speed changes, the wind speed is transmitted.
XS(B)(H)(h)(T) (t)(R)(W)(w)		Auto Xmit Set starts auto transmission the same as XSA except that only auto transmits selected items. For Example, if you enter "AT X SB," the barometer reading will be transmitted any time the reading changes.

ILLUSTRATION BOOKLET

PARTS PICTORIAL

A1

A2

A3

B1

> ALWAYS IDENTIFY AN IC BY THE PART NUMBER OR THE TYPE NUMBER NOTE: THE STYLE MAY BE SLIGHTLY DIFFERENT THAN SHOWN.

C1

C2

C3

D1

D2

D3

> ALWAYS IDENTIFY AN I.C SOCKET BY COUNTING ITS PINS. NOTE: THE STYLE MAY BE SLIGHTLY DIFFERENT THAN SHOWN.

D4

E1

E2

E3

F1

F2

Heathkit

MODEL	SERIES NO.

Model IDA-5001-3   Printed in the United States of America

Pictorial 1

6-32x1/4"
SCREW

CABINET
TOP

MAIN
CIRCUIT
BOARD

P407

P406

P405

S401

S402

P409

P204

P205

#4 LOCKWASHER

4-40x1/4"
SCREW

DRIVER CIRCUIT
BOARD PLUGS

MAIN CIRCUIT
BOARD

4-40x1/4" SCREW

#4 LOCKWASHER

P407   P406

P408

S401

S405

S402

S409

HEX
SPACER

PIN
1

C

SLOTS
S407

RS232

P407

P204

4-40
NUT

P205

#4 LOCKWASHER

Pictorial 3

RS-232C

INSET #2

CRIMP &
SOLDER

1 2 3 4 6 7 8

GOLD PIN

FERRITE
BEAD

INSET #1

CRIMP &
SOLDER

SPRING
CONNECTOR

TAB

7-HOLE
SOCKET