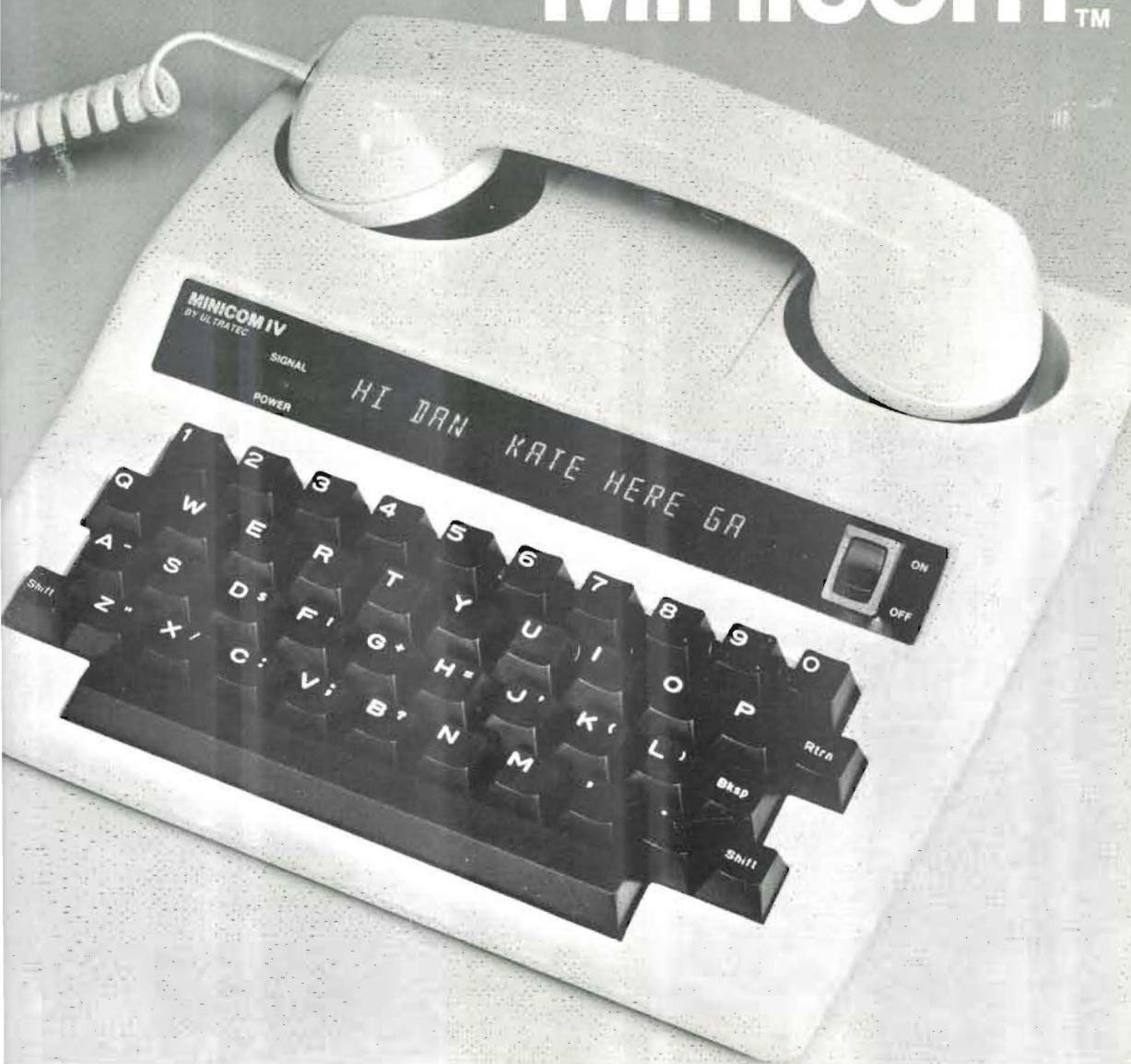

Telephoning with your Minicom™



Second Printing, August 1987

This instruction manual is intended to guide you, the user, in the use and care of your new Minicom TDD. It is not all-inclusive, cannot cover all situations or uses, and may contain technical inaccuracies or typographical errors.

The warranty for your Minicom is stated in full on a separate "Warranty Registration Card." This manual contains no additional warranties.

Technical improvements or changes in Minicom may be made by Ultratec, Inc. from time to time, and without notice. Your comments can help Ultratec improve its products and services. A "User Comment Card" has been included with this manual. Please fill it out and send it to us to tell us what you think about your new Minicom and these instructions.

Should you need any additional information about your Minicom, send your request to:

Communications Department
Ultratec, Inc.
6442 Normandy Lane
Madison, Wisconsin 53719-1119

Telephoning with your **Minicom**TM

User Manual

Ultratec, Inc.
6442 Normandy Lane
Madison, WI 53719-1119

Acknowledgement



***Dr. Robert H. Weitbrecht
(1920-1983)***

In 1963, Dr. Robert H. Weitbrecht, a physicist with a profound hearing loss, made an exciting and important breakthrough for people who are deaf or hearing impaired. He developed an acoustic coupler that could accurately transmit and receive TTY (Teletypewriter) signals over telephone lines. For the first time, by using the Weitbrecht coupler with a TTY, a deaf individual could communicate by telephone.

Now, in this age of micro-computer technology it is possible to build small portable telecommunications devices like your Minicom. However, the Weitbrecht modem was the technological innovation that marked the beginning of telecommunications for the deaf. Ultratec, Inc. wishes to acknowledge this fact, and the significance and importance of Dr. Weitbrecht's contribution to the welfare of deaf and hearing impaired people the world over.

Contents

Congratulations

You now own a Minicom TDD. Minicom comes in two different models — the Minicom III and the Minicom IV. Both Minicom models are sturdy, portable, reliable, and easy to use anywhere.

The Minicom III has a three-row keyboard. The Minicom IV has four rows of keys and includes a built-in printer port. You can use the printer port to connect your Minicom IV to a printer to print your TDD conversations.

Follow the instructions in this manual to learn how to use your Minicom III or Minicom IV.

<i>Section</i>	<i>Page</i>
1 How to Set Up Your Minicom III or IV	1
2 How to Make and Answer TDD Calls	2
Making a TDD Call	
Answering a TDD Call	
3 TDD Etiquette	4
4 How to Use the Rechargeable Batteries	5
Making a Call on Battery Power	
Recharging the Batteries	
Replacing the Batteries	
5 How to Use a Printer With Your Minicom IV	7
6 Care and Service	8
Caring for Your Minicom	
What to Do If...	
If Your Minicom Needs Repair	
Minicom Specifications	9



1

How to Set Up Your Minicom

Set Up Your Minicom Close To Your Phone

You will probably use your Minicom frequently. So set it up in a comfortable place close to your telephone. You will need an electrical outlet nearby.



1. Plug the AC charger/adapter cord into the jack at the back of your Minicom.



2. Plug the AC charger/adapter into an electrical outlet.

Leaving the AC charger/adapter plugged in for long periods of time will not harm your Minicom.



3. Turn your Minicom on.

Push the on/off switch at the right side of the display.

The power light at the left side of the display will glow red whenever your Minicom is on. Now you're ready to make a TDD call.



IMPORTANT! When you set up your Minicom for the first time, connect the AC charger/adapter for 24 hours to completely charge the built-in batteries.

2

How to Make and Answer TDD Calls

Making a TDD Call

Watch the signal light on the left side of the display when you make your TDD call. The signal light shows you the sounds on the telephone line so you will know what is happening.



1. Turn your Minicom on.

The power light will glow red.



2. Place your telephone handset in the Minicom acoustic cups.

Make sure the telephone cord is at your left.



3. Watch the signal light for a dial tone.

The signal light will glow steadily red when there is a dial tone. If the signal light blinks, hold down the telephone receiver button for 3 or 4 seconds, then release it.



4. Dial the number you want to call. Watch the signal light for a ring.

The signal light will flash slowly as the telephone rings. It will flash fast if the phone is busy.



5. When the person you are calling answers, start typing.

If a hearing person answers, the signal light will flicker as he or she speaks. Push the space bar a few times to show you are calling by TDD.



6. When you finish your call, turn off your Minicom and hang up the telephone.

Answering a TDD Call

You may need a signaling device, such as the Ultratec **Phone Master™**, to tell you when your phone is ringing.



1. When your telephone rings, place the handset in the acoustic cups and turn your Minicom on.

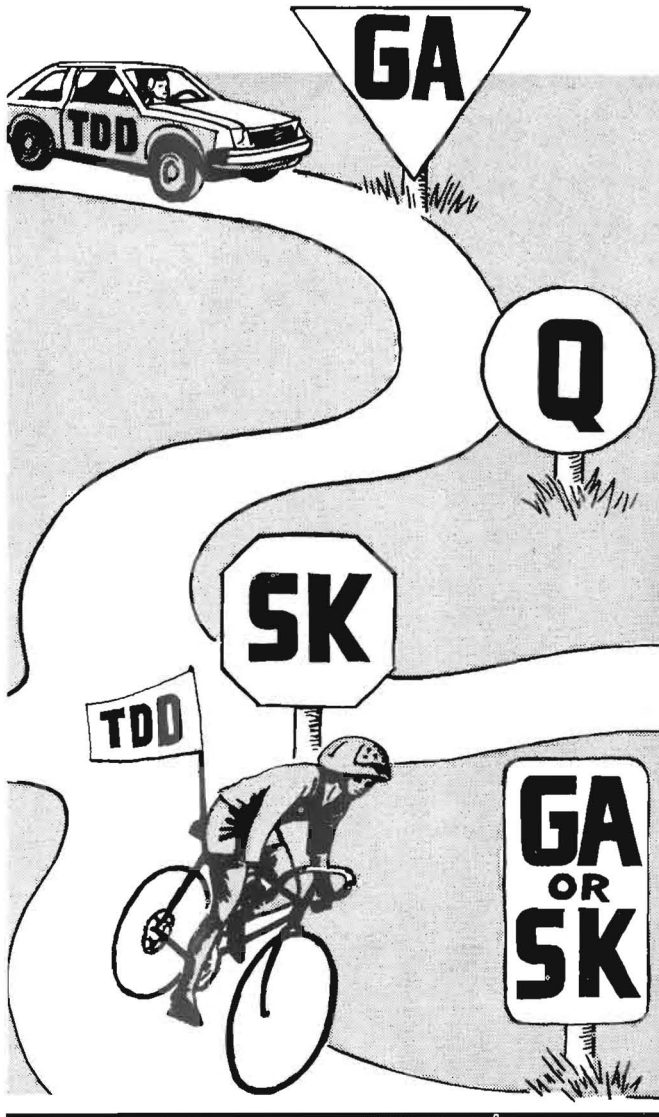
Make sure the telephone cord is at your left.

2. Start typing your conversation.

When you finish your call, turn your Minicom off and hang up the phone.

3

TDD Etiquette



Watch for GA, Q and SK

GA, Q and SK are important signs to follow during a TDD conversation. When you use them, you will know when it is your turn to type, and when to end your conversation.

"GA" means GO AHEAD.

Type "GA" when you want the person you are talking to to start typing. When you read "GA," it is your turn to type.

"Q" is the same as a QUESTION MARK(?).

"SK" means STOP KEYING.

Type "SK" when you want to end your conversation. If someone types "SK" to you, type "SKSK" if you are finished talking. When both you and the person you are talking to have typed "SK," hang up your phone and turn off your Minicom.

"GA or SK" is a short way to say, "Do you have anything else to say? I'm done."

When you read "GA or SK" you can type another message, or finish with "SKSK."

Here is a TDD conversation that uses GA, Q and SK:

Sue: HELLO DAD THIS IS
SUE I WILL BE HOME
AT 5 OK Q GA

Dad: FINE SEE YOU THEN
BYE GA OR SK

Sue: OK BYE NOW SKSK

4

How to Use the Rechargeable Batteries

Making a Call on Battery Power

When your Minicom batteries are fully charged, they can supply power for up to one and one-half hours. The optional heavy-duty batteries last even longer.

IMPORTANT!

Rechargeable batteries work best if they are run down and recharged frequently. If you don't use the Minicom batteries very often, they may run down too soon. See page 8.

Recharging the Batteries

The batteries recharge automatically whenever the AC charger/adaptor is connected and your Minicom is turned off.



1. Disconnect the AC charger/adaptor.

The adapter cord **must** be unplugged from your Minicom for the batteries to work.

2. Make your TDD call.

Follow the instructions on pages 2 and 3 of this manual.

NOTE: Rechargeable batteries last longer when they are used and recharged regularly.

1. The power light blinks on and off when the batteries are getting weak.

Your Minicom will keep working on battery power for about 5 or 10 minutes after the power light starts blinking.

2. To recharge the batteries, connect the AC charger/adaptor, and turn your Minicom off for 12 to 14 hours.

You can use your Minicom while the batteries are recharging.

Replacing the Batteries

If your batteries consistently run down too soon after recharging, you may need to replace them. But first try giving the batteries some "exercise."

Follow the instructions on page 8 before you replace the batteries.

IMPORTANT!

If you need to replace the standard Minicom batteries, use only NiCad size AA rechargeable batteries.

If you need to replace the optional heavy-duty batteries, order a new battery pack from Ultratec or your Ultratec dealer.

Using batteries other than those specified in this manual may damage your Minicom and will void your warranty.



1. Remove the cover to the Minicom battery compartment.

Press in at the back of the cover and lift up.



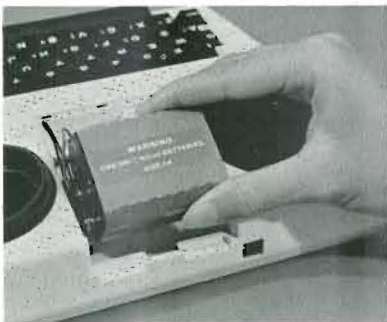
2. Lift the battery holder out of the case and remove the old batteries.

You will need to unsnap the connector and slip off the paper sleeve.



3. Insert six new NiCad size AA rechargeable batteries into the holder.

Make sure to put the batteries into the holder with the + and - ends going the right way.



4. Replace the paper sleeve, snap the connector back on, and put the battery holder back in the case.

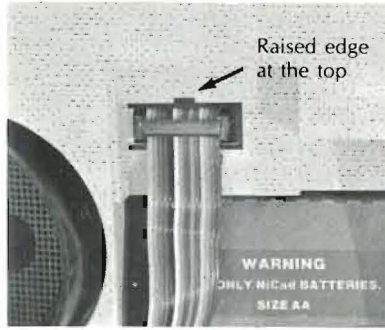
Connect the AC charger/adaptor for 24 hours to charge the new batteries.

5

How to Use a Printer With Your Minicom IV™

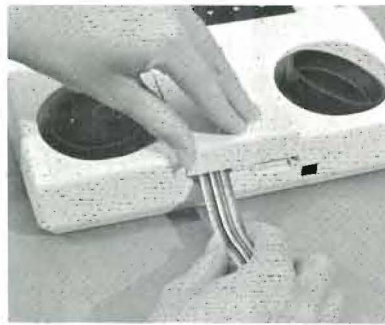
Minicom IV™ Comes With a Built-In Printer Port

The Minicom IV printer port is inside the battery compartment. Use it to connect your Minicom IV to a printer to print your TDD conversations. Printer cables are available from your Ultratec dealer.



1. Plug one end of your printer cable into the "PRINTER" socket inside the battery compartment.

IMPORTANT! The raised edge of the plug must be at the top of the socket so the cable can go out the back.



2. Lead the cable through the slot at the back of the battery compartment. Snap the cover back on.



3. Plug the other end of the cable into your printer.

Different printers use different size plugs. If the plug on your cable doesn't fit, contact your Ultratec dealer.



4. Turn your printer on. Turn your Minicom on, and start typing.

Your printer will print everything you type on the keyboard and everything that someone types to you over the telephone.

6

Care and Service

Caring for Your Minicom

Your Minicom is a modern microcomputer-based electronic device.

Protect it from dust and dirt when you are not using it, and be careful not to spill liquids on it. If the case gets dirty, use a damp cloth to wipe it clean.

What to Do If...

An incoming message is all numbers and punctuation.

The incoming message is probably stuck in "figures" mode. This happens sometimes in TDD calls. Press the space bar once or twice. The incoming message will change to words and letters you can understand.

The batteries run down too soon after recharging.

The batteries are not necessarily worn out. They may run down quickly if you don't use them very often. Follow Steps 1, 2, and 3 to give the batteries some "exercise."

- Step 1) Completely discharge the batteries. Unplug the AC charger/adaptor, turn your Minicom on and let it stand for a few hours.
- Step 2) Recharge the batteries. Connect the AC charger/adaptor, turn your Minicom off, and let it stand overnight. (See page 5.)
- Step 3) Repeat Steps 1 and 2 a few times. If your batteries still run down quickly, replace them. (See page 6.)

If Your Minicom Needs Repair

Pack up your Minicom and AC charger/adaptor in the original shipping box.

Put a note in the box that describes the problem you are having. Tell the Post Office or shipping company you want insurance for shipping your Minicom. Then, send it to your authorized Ultratec repair center, or to:

ULTRATEC NATIONAL SERVICE CENTER
6442 Normandy Lane
Madison, WI 53719-1119

Minicom Specifications

Physical Dimensions

Size: 8.9" x 10" x 2.5"
(224 mm x 254.0 mm x
63.5 mm)
Weight: 2.5 lbs. (1.1 kg)
including batteries

Power

AC charger/adaptor:
9VDC, 500 ma
(Barrel is positive)
Adaptor is U.L. listed,
CSA approved
Standard batteries: 6 size
AA NiCad rechargeable
Heavy-duty (optional): 6 size
sub-C NiCad rechargeable

Keyboard

Minicom III: 3-row
keyboard, 33 keys
Minicom IV: 4-row
keyboard, 43 keys
Character set: A-Z, 0-9, Bksp,
Rtrn, Space, + - = ! \$ ' () / : ; ? , .

Display

Blue/green vacuum-
fluorescent
20-characters
Character height 0.25" (6mm)

Telecommunications

Baudot (45.5 baud) code
Sensitivity: -45dbm,
67dB SPL (min)*
Output: -12dbm,
100 dB SPL (Min)*
Coupler: Flexible — accepts
different size handsets

Minicom IV Printer-Port

Parallel interface
Pin assignments:

1 DATA STROBE	6 D4	11 GROUND
2 DO	7 D5	12 GROUND
3 D1	8 D6	13 GROUND
4 D2	9 D7	14 GROUND
5 D3	10 ACK	

Minicom III and IV Optional Equipment

Heavy-duty batteries
Square acoustic cup adapters

*Subject to changes in communications standards.

Federal Communications Commission Required Information

Your Minicom Generates and Uses Radio Frequency Energy and May Cause Radio or Television Interference

- Your Minicom complies with the regulations for a Class B computing device as specified in Subpart J of Part 15 of FCC Rules. These rules are designed to minimize radio frequency interference in residential installations. However, there is no guarantee that radio frequency interference will not occur in any particular installation.
- Install and use your Minicom in strict accordance with the instructions in this manual.
- You can determine if your Minicom is causing interference to radio or television reception by turning your Minicom on and off. Try to correct the interference:
 - Adjust the radio or television antenna.
 - Move your Minicom away from the antenna.
 - Move your Minicom away from the radio or television.
 - Plug your Minicom into another outlet so that it is on a different branch circuit from the radio or television.
 - If necessary, consult an experienced radio/television technician for additional suggestions.

ULTRATEC

6442 Normandy Lane
Madison, WI 53719-1119
(608) 273-0707

