PORTA PRINTER

MODEL: PORTA PRINTER 2000, 2000D, 2000DLD

INSTRUCTION MANUAL

3RD EDITION

KROWN
MANUFACTURING

INTRODUCTION

Welcome to state-of-the-art Telecommunications Devices for the Deaf manufactured by the industry pioneer: Krown Manufacturing. For nearly the decades, Krown has provided a full line of TDDs to meet the many individual needs of the deaf and hearing-impaired. Expert craftsmanship, superior design and affordable prices are what Krown Manufacturing stands for.

Your new Porta Printer is the very latest in Krown technology. The unit is compact, lightweight, portable and easy to use. This manual is set up so that you are able to begin using your Porta Printer immediately, while you take your time and become familiar with its many unique features.

A Quick reference Guide is for your convenience. It provides a summary of the features that your Porta Printer offer. For quick reference, you may also consults your Porta Printer's built-in Help Menu. If you have any questions that this manual does not answer, feel free to call our Customer Service Department toll-free at (800) 366-9950.

Your Porta Printer comes with:
- Porta Printer PP2000
- Power Cord with AC Adapter
- Modular Cord (PP2000D)
- Instruction Manual
- Warranty Card

KROWN MANUFACTURING

Our Mission is to improve the quality of life for people who are deaf and hard of hearing by providing excellent telecommunication equipment for individuals,businesses, and professionals in any place including the homes, work place, and in all public facilities.

Who are we?
We are the world's largest and leading Deaf-owned manufacturer of telecommunications devices for the Deaf (TDD). Our headquarters are in Fort Worth, Texas. (USA)

Krown Manufacturing, Inc. has earned an excellent reputation for providing consumers, corporations, health care centers, governments, hotels, schools, universities and many other organizations with outstanding value and services.

At Krown, we...

• Sell   • Rent/Lease
• Repair   • Train
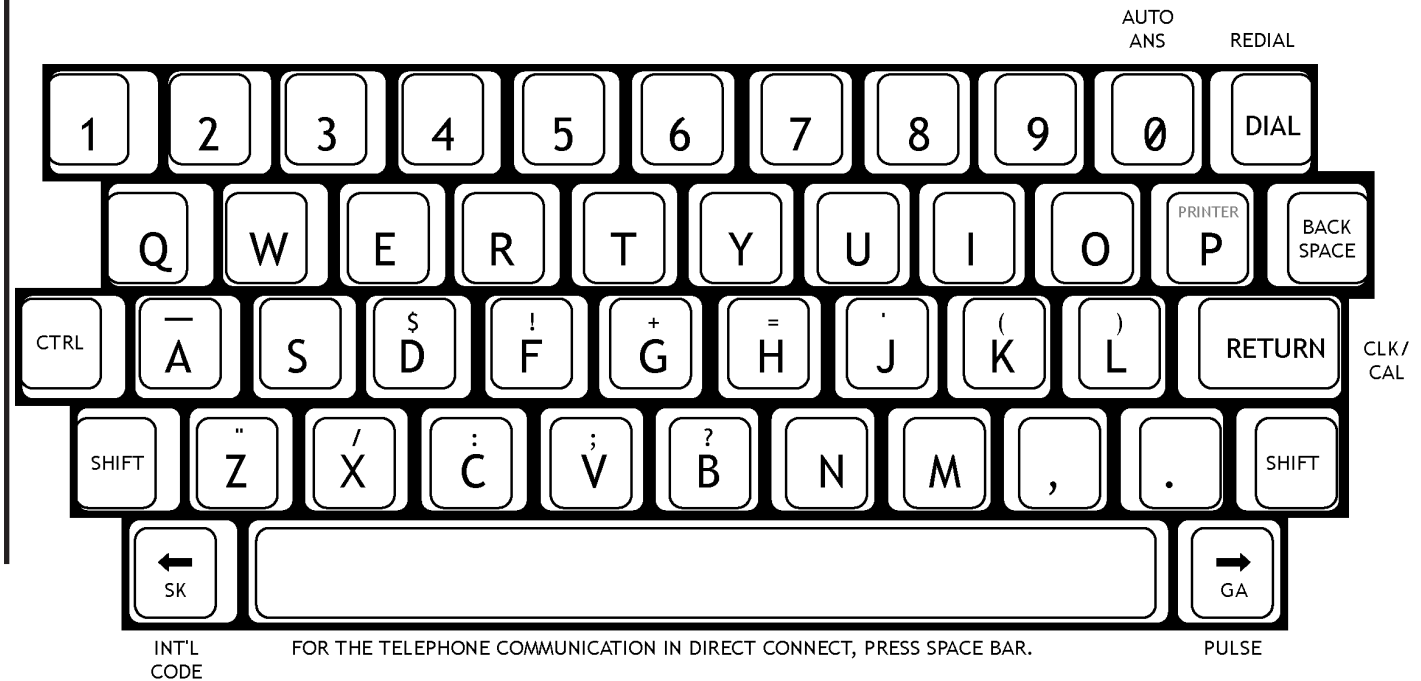• Provide toll-free ordering and a support department
• Include a first rate warranty

Krown Manufacturing will serve you better.

TABLE OF CONTENTS

PORTA PRINTER 2000 KEYBOARD

AUTO
ANS   REDIAL

INT'L
CODE   FOR THE TELEPHONE COMMUNICATION IN DIRECT CONNECT, PRESS SPACE BAR.   PULSE

Most of the keys on your Porta Printer are same as the keys used on a typewriter, but some are special and easily identified and understood.

SPECIAL PURPOSE KEYS

KEY	NAME	OPERATION DUTIES
CTRL	CONTROL	Used with another key to tell the Porta Printer to perform or set a particular feature. The key must be pressed first and held while another key is pressed.
SHIFT	SHIFT	Controls the typing of an upper case figure show on the key (only upper case letters will appear on the display.)
SK GA	ARROW KEYS	Moves the cursor (pointer) to the left or right, one character at a time, for reading and changing stored messages. During conversations, those keys are also used to generate GA and SK
SPACE BAR	SPACE BAR	Moves the cursor (pointer) one space forward.
RETURN	RETURN	Signals the printer or a TTY to begin a new line on the paper. Also used to advance the paper.
BACK SPACE	BACK SPACE	Moves the cursor one space backward.

KEY USED WITH CONTROL KEY (Found at top, bottom, and right side of keyboard.)

KEY	NAME	OPERATION DUTIES
SHIFT + DIAL	DIAL*	Allows you to call a phone number typed on the keyboard or stored in the Directory (PP2000D, PP2000DLD).
CTRL + SHIFT + E	EMERGENCY DIAL	Automatically dials 911 and allows you to communicate with 911 operator.
CTRL + 0	AUTO ANSWER	Turns the Auto Answer feature on and off.
CTRL + ←	INTERNATIONAL (LEFT ARROW)	Used to change the PortaPrinter 2000 to International (50 Baud) Operation.
CTRL + →	TONE/PULSE (RIGHT ARROW)	Used to select Pulse or Tone dial, when available (PP2000D).
CTRL + SPACE BAR	VOICE ON	Turns electronic voice on and off.
CTRL + SHIFT + RETURN	SETS CLOCK	Set Date and Time .
CTRL + RETURN	CLOCK & CALENDAR	View Date and Time
CTRL + R	CALL RELAY TX ONLY	If you live in Texas, you can call direct to Relay Texas by using this feature. (Only use for PP2000DTX.)
CTRL + V	VCO CALL	Turn on VCO mode or HCO mode.

NOTE: The CONTROL, SHIFT function keys must be pressed at the same time. Hold the CONTROL, SHIFT key down first and press the special purchase key at the same time.

Dual Phone Jacks
(Direct Connect Models)

Paper Cover

Thermal Printer

AC Power Jack

Acoustic Coupler

Battery Pack

Krown Manufacturing

KROWN - PP2000

POWER   ON

PHONE   OFF
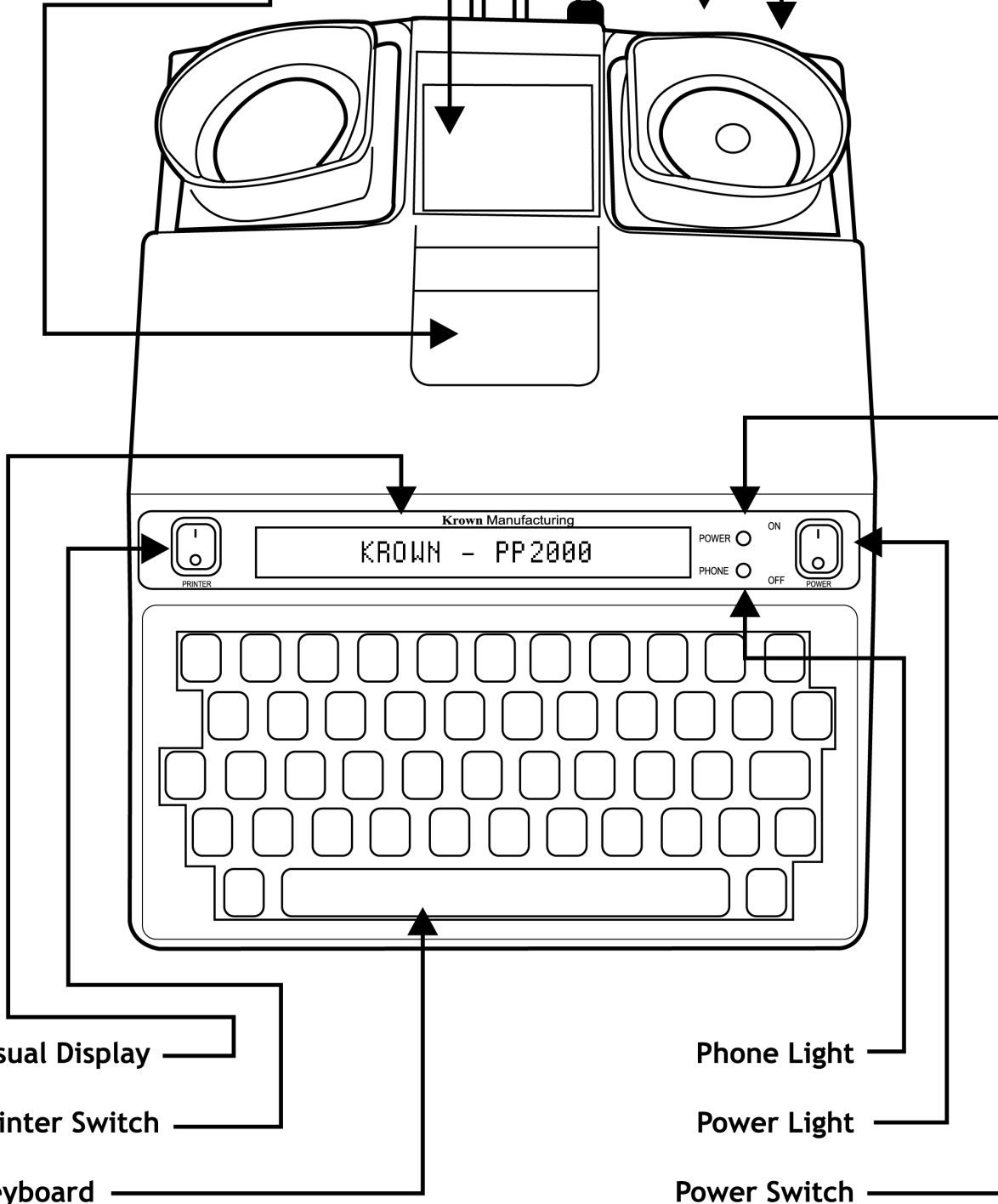
PRINTER

POWER

Visual Display

Printer Switch

Keyboard

Phone Light

Power Light

Power Switch

GETTING STARTED

TO SETUP YOUR PORTA PRINTER 2000D

Place your Porta Printer near your telephone. The power unit is connected to a regular power outlet and the Porta Printer is used with your telephone.

- Be sure that the ON/OFF switch on the TDD is OFF.
- Plug small end of adapter cord into small hole at back of TDD.
- Plug AC Adapter/Charger into an electrical wall-outlet.
- Keep both ends plugged in even when machine is not being used for a telephone call.
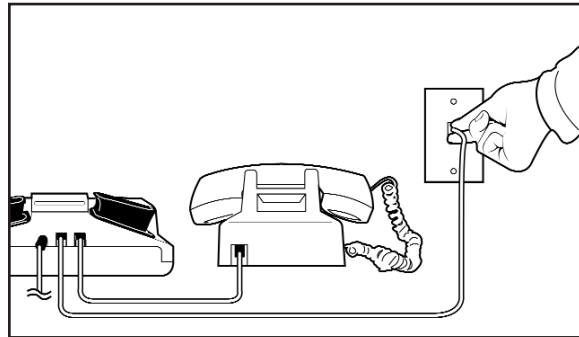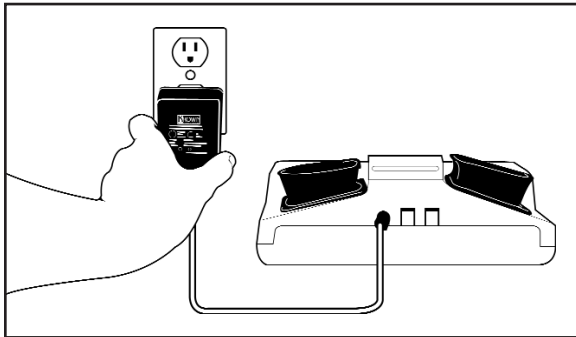
If your PortaPrinter 2000D has the Direct Connect option, plug one end of your modular cord into the telephone wall jack. Plug the other end into either jack on the back of your TDD. The second jack can be used to connect your telephone set or signaling device to the PortaPrinter 2000D.

THE LIGHTS AND SWITCHES
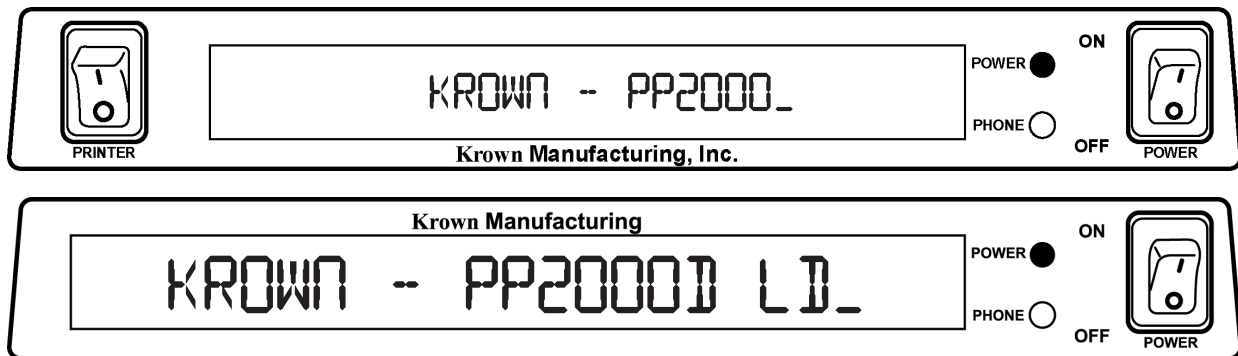
Phone Light	Shows sounds heard on the telephone line.
Power Light	Show status of power. When the light shows:

STEADY = Power is ON
FLASHING = Low battery power
NO LIGHT = Power is OFF

Power Switch	This switch turns the power ON and OFF
Print Switch	This switch turns the printer ON and OFF.

7

ELECTRONIC VOICE
The Electronic Voice is a single unchangeable voice message that is stored in the memory of your PortaPrinter 2000. The message is used for calling hearing people at VOICE/TDD number. It tells them "Please use TDD for hearing-impiared caller."

The voice message will repeated until your TDD conversation begins (when your TDD receives signals from another TDD). As soon as the other person begins to type, the electronic voice message stops.

[CTRL] + [SPACE BAR]

To turn the Electronic Voice ON or OFF
- Press [CTRL] and [SPACE BAR] to turn your Electronic Voice on. VOICE ON will appear on the display screen.
- Press [CTRL] and [SPACE BAR] to turn your Electronic Voice off again. VOICE OFF will appear on the display.

Note: It will be necessary to turn your electronic voice off before using any control key operations.

AUTO ID
Each time your PortaPrinter 2000 is turned on, the Auto-ID feature emits tones automatically without interfering with any of the TDD functions. This feature is turned off if the electronic voice is activated instead. These tones are to notify the party you are calling that a TDD call is being received. The moment another TDD answers, the tones automatically stop. To turn on and off auto ID, press [CTRL]-[S].

[CTRL] + [S]

BATTERY POWER INFORMATION
Your Krown Porta Printer is designed to operate from battery or AC (house electricity) power. The battery is used for backup memory and when power outages. If you unplug the AC adapter from the machine, the Ni-Cad battery will operate for approximately 2 hours when fully charged. The batteries will automatically recharge whenever the unit is plugged into the AC charger/adapter and the TDD is turned OFF. To help the battery last longer, let it run down until the Power Light starts to flash BRIGHT -dim- BRIGHT -dim-. This means that the battery is running down and needs recharging. The light will flash for several minutes. Then the Porta Printer will stop working. When this happens, you must change over to AC power to continue using your machine until you recharge the battery. It is suggested that you use the Porta Printer with battery power in a regular cycle. That is, operate the unit on battery power until it needs recharging. Then recharge the battery by plugging the TDD into the AC charger/adapter for 12-14 hours. (The unit must be turned OFF in order to recharge.)

II   USING YOUR PORTA PRINTER

HELP MENU

For your convenience, a quick reference Help Menu has been preprogrammed in the Porta Printer 2000.

To access the Help Menu:

CTRL	+	H
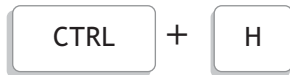
HELP MENU   The Help Menu is displayed and printed out.

SELECT OPTION 1-5

2

PLACING A CALL   Simple, easy to follow directions for placing a call will be displayed and printed.

To exit the Help Menu:

5

KROWN - PP2000D   You may now use your Porta Printer 2000 to make or answer a call

HOW TO MAKE A TDD CALL BY USING ACOUSTIC CUPS

1. Turn on the Porta Printer
   The PP2000 display window will show
   KROWN - PP2000D ON.
2. Place telephone receiver down firmly in the rubber acoustic cups with telephone cord on the LEFT.
3. If the phone light is on and steady, there is a dial tone. Dial the telephone number now on your telephone, not on the Porta Printer. If the phone is not steady nor flashing your phone extension may be in use by someone else.
4. Watch the Phone Light after you dial the number. If the light shows:
   1) SLOW FLASHING = Telephone is Ringing at the number dialed.
   2) FAST FLASHING = Line is Busy at the number dialed.
   3) IRREGULAR FLASHING = (1) Your call cannot be completed as dialed. Hang up, check number and try again, or call the TDD Operator for assistance.
   (2) The number is voice only. (3) Your call has been answered by the an answering machine.
5. The incoming messages are printed in upper case (CAPITAL) letters. Outgoing messages are printed in lower case (small) letters.
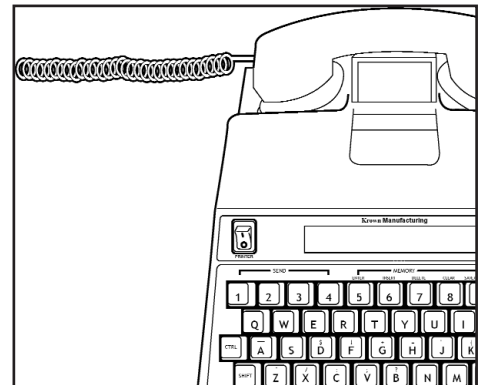
CALL PROGRESS (Porta Printer 2000D)

When placing a call using your Porta Printer 2000D keyboard dialing feature, the status of your call will automatically appear across the display screen. With this feature, the words "dial tone", "ringing", "answering", or "busy" will appear on the display screen so you know what is happening on the telephone line.

TELEPHONE CONVERSATIONS

1. When someone answer s your TDD call with his/her TDD, the person's response will end with GA (Go Ahead). You now type back. Pressing the [GA] key is like saying, "Okay, it's your turn to talk now."
2. When both people are ready to hang up, press the [SK] key (instead of [GA]) or GA to SK. This means "Stop Keying." When both have typed SK the conversation is finished. Hang up the telephone by putting the handset back on the phone. Turn the power switch off.

TO ANSWER A TDD CALL

1. Turn the Power Switch ON.
   - The Power Light glows red.
   - "KROWN PP2000D" is displayed.
2. Place your telephone handset firmly into the acoustic cups with the cord to the LEFT.
3. Type an answer message.
   - Example: "AMY HERE, GA"
4. When both people have finished the conversation, place your telephone handset back on the phone.
5. Turn your Memory Printer OFF.

AUTO ALERT TONE

1. The Porta Printer 2000 will automatically send out a TDD tone when the unit is turned on. This tone will be send continuously until you hit a key, or a valid TDD character is recieved.
2. In direct connect (PP2000D), the auto alert tone will be sent out either at power up or after a call has been answered.

PRINTER ON/OFF (PP2000DLD)

Turn printer on and off.

CTRL	+	P
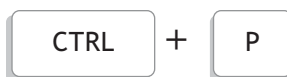
EMERGENCY CALL

The PP2000D will automatically dial 911 and allow a faster connection to the 911 operator.
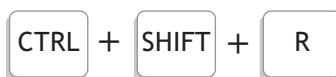
CTRL	+	SHIFT	+	R	Auto dials 911 and sends out a series of TDd tones to let the 911 operator know it is a TDD call.

MAKING AN OVERSEAS CALL

To place a call outside the United States or Canada, you may need to change the tranmission speed (Baud rate) at which your POrta Printer 2000 sends messages. In the United States and Canada, the standard rate for TDD/TTY transmission is 45.5 Baud, while the international standard is 50 Baud.

Change between Domestic and International Baud rate.

| CTRL | + | ← | INT'L SPEED? Y/N |

| Y | INTERNATIONAL ON |

You are ready to go ahead and dial your overseas call.

To change back to the domestic TDD/TTY Code after you call, follow the steps below.

Change between International and Domestic Baud rate.

| CTRL | + | ← | INT'L SPEED? Y/N |

| Y | INTERNATIONAL ON |

Back to the domestic TDD/TTY Code.

AUTO DIAL RELAY NUMBER (PP2000D-TX ONLY - FOR TEXAS RESIDENTS)

The PP2000D-TX will automatically dial the Texas State Relay number. To use this feature you need to press and hold the [CTRL] and letter [R] at the same time.

| CTRL | + | P |
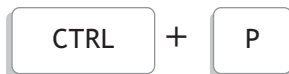
III DIRECT CONNECT WITH THE PORTA PRINTER PP2000D
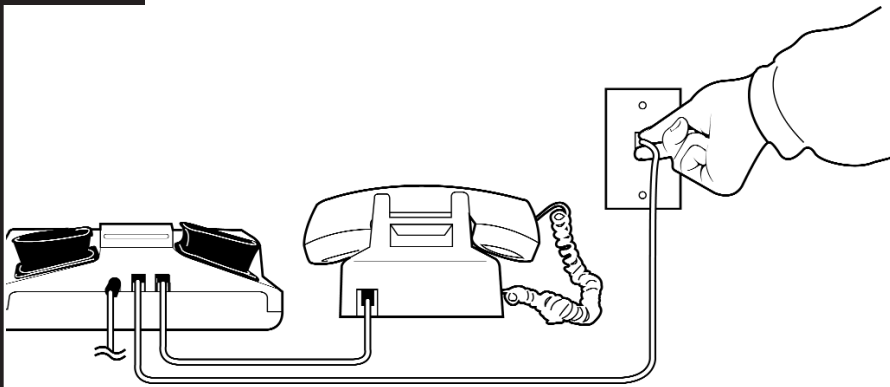
The Direct Connect feature saves you time and gives you a better connection. you can use your Porta Printer without having to place the telephone handset into the acoustic cups. It also gives you the choice of dialing from the keyboard or from numbers stored in the Phone Directory (see page 17 for information on storing numbers in the Directory.)

To connect your Porta Printer to your telephone line, plug one end of your modular telephone cord into the telephone wall jack. Plug the other end into either hack on the back of your Porta Printer.

After changing to Direct Connect, it is necessary to press the [SPACE BAR] or [SHIFT] + [DIAL] to connect with the telephone line.

KEYBOARD DIALING
Turn the Power Switch ON.

The Porta Printer will automatically change to and remain in Direct Connect when you have your PP2000D plugged into the telephone line.

PRESS:
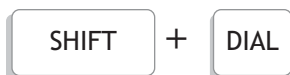
| SHIFT | + | DIAL |

| PLEASE WAIT | TDD is now ready to dial

If there is no dial tone, the screen will display.

| LINE NOT CONNECTED | Check the phone line and press [SHIFT]+[DIAL] again.

| DIAL TONE | Dial tone is detected.

| LINE NOT CONNECTED | TDD is now ready to dial. If you make a mistake, use the [BACK-SPACE] to correct.

5 5 5 1 2 3 4 | 5551234 | The number is displayed and dialed after you press the [RETURN] key.

| RETURN |

The number will be temporarily stored in the Porta Printer 2000D for redial purpose. If you want to use the Redial feature, don't turn the TDD off after you dial a number. Use [CTRL]+[9] to disconnect from the telephone line and start the [DIAL] function again.

| SHIFT | + | DIAL | CHECK FOR DIAL TONE | Automatically redials the last number. |

There is another unique feature that the Porta Printer 2000 provides. If you intend to use the PP2000D behind a PBX or a telephone system that will send a second dial tone to your phone after you have dialed the access code for oubouynd calling (usually an 8 or a 9), the PP2000D will detect this secondary dial tone and dial the rest of the number automatically. This feature is activated by using the + sign between the digits.

| SHIFT | + | DIAL | CHECK FOR DIAL TONE |

9 + 5 5 5 1 2 3 4   **9 + 5 5 5 1 2 3 4**

| RETURN |

5551234 will only be dialed if there is a second dial tone. The TDD will time out after 5 seconds if there is no dial tone detected.

TONE/PULSE DIALING
Telephone companies offer both pulse and tone dialing. The Porta Printer 2000 will use tone dialing unless you change it. Most tone dialing services will allow you to use rotary (pulse) dialing, but some rotary services will not allow you to use tone dialing.

To set the Porta Printer 2000 for pulse dialing:

| CTRL | + | → | PULSE DIAL? Y/N |

| Y | OR | PULSE DIAL ON | Choose pulse dialing. |

| N | TONE DIAL ON | Choose tone dialing. |

ACOUSTIC/DIRECT CONNECT MODE SELECTION
The Porta Printer 2000 will automatically select Direct Connect mode when you activate the [DIAL] (keyboard dialing) feature. The Porta Printer 2000 will remain in the mode (Acoustic or Direct Connect) you select unitl you change it, or the unit is turned off.

USING THE PP2000D AUTO-ANSWER FEATURE
The Porta Printer 2000D has a built-in answering machine to answer your calls when you are away. To use Auto Answer, the Printer must be ON.

To set your Porta Printer 2000D to Auto Answer:
      1. Connect your Porta Printer 2000D to the AC charger/adapter.
           • Make sure you have plenty of paper.
           • Make sur eyou have connected your Porta Printer 2000D to the telephone line.
      2. Turn the Power Switch ON.
           • "Power-on" message such as PP2000D-POWER ON is display.

PRESS

| CTRL + 0 | NO. OF RINGS (1-9)? | Selects Auto Answer mode. |

Select the number of times you want the phone to ring before it is automatically answered by your TDD.

| 4 | AUTO ANSWER ON | (Ex.) auto Answer is activated and will answer in 4 rings. |

After a call is received, the PP2000D will automatically send out the prerecorded Auto Answer message: "Hello, this is a TDD answering machine. Please leave your name, number and message and your call will be returned. thank you. GA"

To answer an Incoming Call when the Auto-Answer is ON:
      1. Press the [SPACEBAR] once before or after Auto-Answer message is sent.
           • The Auto-Answer is removed.
           • The Porta Printer 2000D is now "online" with caller.

| X + X + X | XXX | Alerts your caller that you are on the line. |

| **H E L L O** | XXX HELLO | Type your greeting on the keyboard. |

| CTRL + 9 | AUTO ANSWER ON | Your TDD is again in Auto-Answer and ready to answer calls. |

Note: Your Porta Printer 2000D will automatically disconnect and return to Auto-Answer after 20 seconds if neither person is typing. If you need to prevent this from happening:

| CTRL + 0 | NO TIMEOUT | You will now not be disconnected. |

IMPORTANT: To end your call and return to Auto-Answer:

| CTRL + 9 | AUTO ANSWER ON | You have now disconnected the phone line and you are back in Auto-Answer. |

| CTRL + 0 | AUTO ANSWER OFF | Press [CTRL]+[0] to turn Auto Answer OFF. |

USING THE CLOCK CALENDAR
The Clock Calendar prints the time and date for each message that is received.

PRESS
To set the clock and calendar:

| CTRL | + | SHIFT | + | RETURN |

9:31 PM 02/09/03	The current time and date are displayed and then cleared.
SET CLOCK? Y/N	

| Y | | HOUR 01-12 | Type the correct two-digit hour. |

| 0 | + | 4 (ex) | PM? Y/N | Type [Y] for yes (PM) or [N] for no (AM). |

| Y (example) | MIN 00-59 | Type the correct two-digit minute. |

| 2 | + | 4 | DAY 01-31 | Type the correct two-digit day. |

| 2 | + | 9 | MONTH 01-12 | Type the correct two-digit month. |

| 0 | + | 8 | YEAR 02-99 | Type the correct two-digit year. |

| 0 | + | 3 | 04:24 PM 08/29/03 | Time and date are displayed. |

| RETURN | 04:24 PM 08/29/03 | Time and date are printed if printer is ON. |

To display/print the time and date:

| CTRL | + | RETURN | 04:24 PM 08/29/03 | Time and date are displayed. |

| RETURN | 04:24 PM 08/29/03 | Time and date are printed if printer is ON. |

IV HOW TO USE VCO AND HCO CALL

If you would like to make a call with Voice Carry Over and wish to receive the Baudot tone back from the Relay Operator, you could use this feature of the PP2000D. In order to use this feature you will need the help from the Relay agent. Follow this procedure to make a call:

1. Plug the external clip microphone to the MIC jack on the right side of the machine. Clip the microphone to your shirt close with your mouth.

2. Turn on the TTY machine.

3. Press [CTRL] and [V] at the same time. Release both keys. The display will read "VCO ON"

   CTRL + V

4. The MP2000D is now ready to transfer your voice. Press [SHIFT] and [DIAL] at the same time or use [CTRL] and [R] to auto dial Relay number.

   SHIFT + DIAL

5. After you see the message "TYPE NUMBER OR A-Z": type your state relay number.

6. When the Relay Operator answer the call, you now may type the request to make the VCO call to the operator. For example, "I WANT TO MAKE A VCO (or HCO) CALL PLEASE GA"

7. When the operator is ready to receive voice, he or she will ask you to start voice. From now on, you can use voice to communicate with the operator and the caller when receiving Baudot answer on your screen.

8. To end the VCO call, press and hold [CTRL] and [9] at the same time until you see the message on the screen, "DISCONNECT (Y/N)?" Type [Y] if you wish to hang up the call. Type [N] to continue the conversation.

   CTRL + 9

Hearing Phone User   **Relay Service**   **HCO**

speaking →   speaking →

hearing ←   ← typing

OR

VCO

speaking ←

typing →
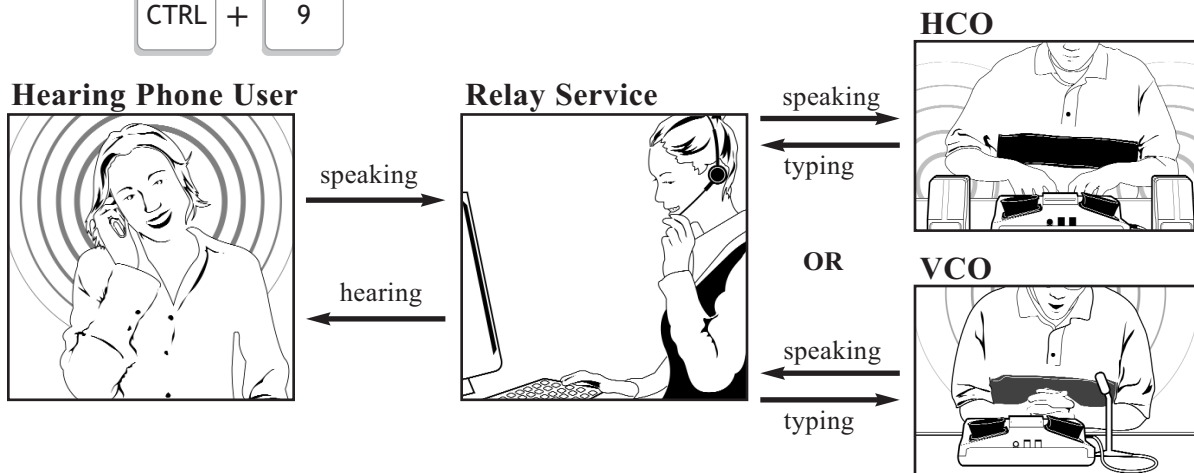
NOTE: If you wish to make a HCO call, use the external speaker instead of microphone and type the message to Relay when listen to the caller's voice. VCO and HCO are options for your PP2000D. Please call your Krown's Representative to have it installed

V   MULTI-WIDE PRINTING FEATURE

The Multi-Wide printing feature of your Porta Printer allows you to select three sizes of letters and numbers that are printed on your TDD. These three sizes are:

```
this is normal size
print when you type.
THIS IS NORMAL SIZE
PRINT WHEN YOU RECEIVE.

this is condensed size
print when you type. THIS
IS CONDENSED SIZE PRINT
WHEN YOU RECEIVE.

this is wide print
when you type.
THIS IS WIDE PRINT
WHEN YOU RECEIVE.
```

Normal: 20 characters/line

Condensed: 24 characters/line. These characters are a little smaller than the Normal-Size characters. They may be used if you wish to save paper by printing smaller characters.

Wide: 12 characters/line. These characters are very large and bold and are useful for people who have difficulty reading the Normal-Size characters.

PRESS:

To select Condensed Print, press and hold the [CTRL] key and press [C].

[CTRL] + [C]   **CONDENSED PRINT**   is display.

To select Wide Print, press and hold the [CTRL] key and press [W].

[CTRL] + [W]   **WIDE PRINT**   is displayed.

To select Normal Print, press and hold the [CTRL] key and press [N]

[CTRL] + [N]   **NORMAL PRINT**   is displayed.

NOTE: When the Porta Printer with the Multi-Wide printing feature prints in ASCII, the print will always be condensed Print. The Porta Printer will remember the print width that you selected. For example, if you select Condensed Print and then turn your Porta Printer off, your Porta Printer will be in Condensed Print mode when you turn it on again.

If you have the Porta Printer with large display (PP2000DLVD) and want to turn on/off the printer, press [CTRL] + [P].

TEST MESSAGE
A test message is built into the Porta Printer (PP2000D) to use when testing the printer on the machine. To test the printer:

[CTRL] + [Q]   **THE QUICK BROWN FOX**   The test message is displayed and printed.

To end the test message.

[CTRL] + [9]   **JUMPS OVER THE LAZY**

[CTRL] + [T]   **TEST PATTERN**   The Multi-Wide test message will now print.

VI   LOADING AND CHANGING THE PAPER

Before you put in a new roll of paper, look at the way the paper is in the machine now. Notice that the paper comes off the BOTTOM of the roll and up behind the print head.

To load more paper:

1. Remove the paper cover by pushing it toward the rear of the unit and lifting up. See Figure 1. Be sure to remove and save the paper roll spindle that is inside the paper roll you are removing; you will need it later.
2. Cut or tear the paper as show in Figure 2 to separate the paper roll from the paper in the machine.
3. To remove the paper remaining in the printer, press the [RETURN] key several times until the paper comes out at the top of the printer.
4. Cut paper, at least 2 $\frac{1}{2}$", at the end of the new roll into a point or "V" shape:

Figure 1
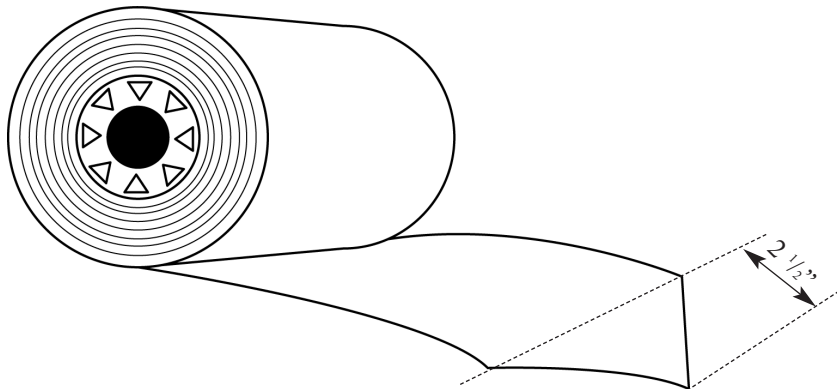
Figure 2

Figure 3

Place the paper roll spindle that you removed in Step 1 into the hole in the center of the paper roll.

5. Insert the new paper roll by feeding the paper into the well. Be sure that paper feeds from the BOTTOM of the roll. See Figure 3.
6. Using the [RETURN] key, feed the paper until it comes up behind the print head. Continue feeding until the paper comes up through the paper cutting window, as shown in Figure 4.
7. Place the roll of paper in the paper well and replace the plastic cover on the machine.

Figure 4
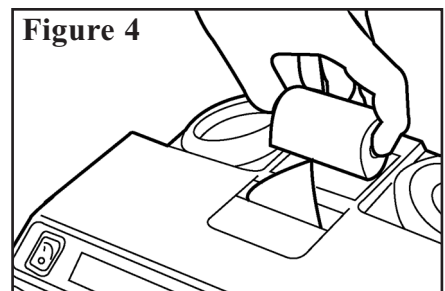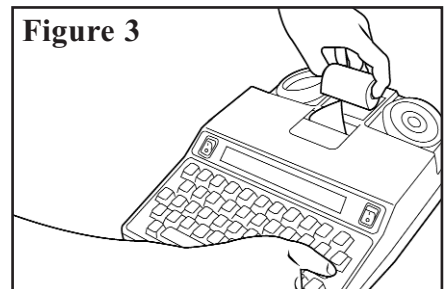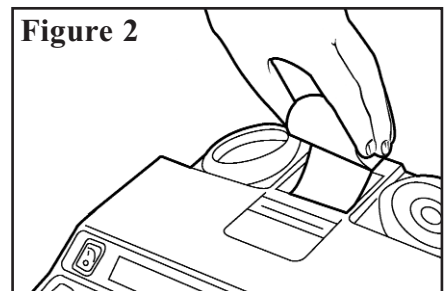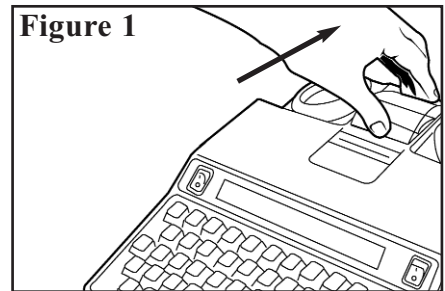
Please Note:
*   *The Porta Printer does not use any ink or ribbon. Instead it uses special paper that prints using heat. This paper*
    is called "thermal printing paper." You Memory Printer will not work with any other kind of paper.
*   *To insure that you receive the highest quality thermal printing paper, order from your local Krown distributor.*
*   *Your Porta Printer has the Multi-Wide Printing feature. Use only 2 $\frac{1}{4}$" paper. Please specify "Type MW" paper when ordering.*

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VII

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USING YOUR PORTA PRINTER 2000D WITH A WIRELESS PHONE

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If you order your PP2000D with wireless option, use the supplied cable to connect your TDD direct to a select digital cell phone, or a cordless phone with 2.5mm headset jack. When purchasing a cell phone and service for your PP2000D, make sure you get a TDD compatible unit or look for the TDD-cell phone symbol.

OR
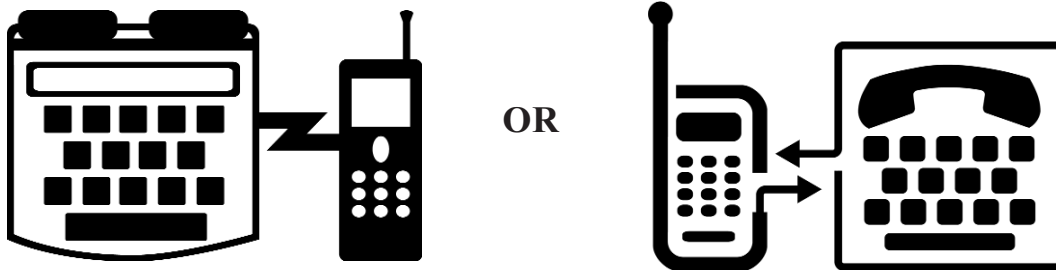
MAKING A CELLULAR CALL WITH YOUR PP2000D

Always charge the TDD and your cell phone in full before use. Make sure you get a strong signal from your provider and your TDD is off. Setup your cell phone to work in TDD mode.
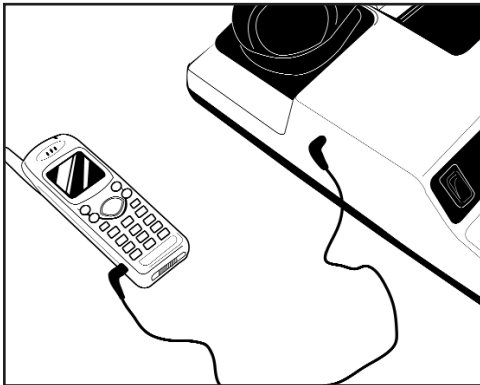
1. Connect the cable from the cell phone to the TDD
2. Turn on your TDD
3. Select TDD mode on your cell phone (refers to your cell phone manual for more detail).
4. Dial the number you are calling on the cell phone.
5. If the other party's TDD pick up, the PP2000D will display text and the conversation has been started.

ANSWERING A CELLULAR CALL

Make sure to turn the Ringer of your cell phone to vibrate mode. If your battery doesn't support this mode, you may need to order a vibrate battery from your cell phone provider.

1. If the cell phone vibrates, you have an incoming call, connect your PP2000D using the cable that come with your TDD to the cell phone.
2. Answer the call on your cell phone (usually your press "talk" or "send" button on your cell phone. Refer to your instruction book for how to answer a call for your phone.)
3. Turn on your PP2000D and type your greeting message.

When you are ready to hang up, turn off the PP2000D and press the button to hang up the call of your cell phone.

NOTE: Connecting your PP2000D to a wireless phone is an option. Please call your Krown's representative to have it installed. Cellular is not included.

USING YOUR PP2000D WITH A CORDLESS PHONE
You can connect your MP2000D to a cordless phone with a 2.5mm headset jack, and enjoy the freedom of making a call around the house. Charge the cordless phone and PP2000D at night to get them ready to use next day.

Making a cordless phone call with your TDD.

1. Connect the PP2000D to the cordless phone using the 2.5mm audible cable.
2. Turn on your PP2000D
3. Press ON or TALK button on your cordless phone and watch "Phone" light on your TDD to make sure you get a dial tone.
4. Dial number on your cordless phone.
5. If the other TDD or Relay agent picks up your call, your PP2000D will display text message and the communication link has begun.

TROUBLESHOOTING FOR TDD-WIRELESS CALL
There are many new technology that has been used to establish the wireless communication link between your and the other TDD users, you will get some problems sometimes by many causes.

Garbled Text: It may be caused by lost, damaged or late signals sending through the air to the receiver. It happen s with any wireless call, even non-TDD calls, and mainly caused by nature. Move your TDD and wireless phone to where you can receive a strong and contact signal. If you use a cordless phone refer to your owner's manual to know how to switch channel or move closer to the base to strengthen the signal. Always check to make sure you have a good connection from the cable to the TDD and the wireless phone.

*"Drop Call":* It happen sometimes when you are moving between 2 call towers or in valleys, hills, and tunnels. Try to redial when you have a stronger signal from your cell phone.

Feedback: If you see your "Phone" light on your TDD on constantly, your PP2000D is getting feedback. You may reduce the volume of your cell phone or cordless phone down until the red light turns off and then increase it for better receiving.

VIII   TAKE YOUR PORTA PRINTER WITH YOU

The PP2000D can operate from battery power, making your unit completely portable. To use battery power, unplug the AC charger/adapter from the unit.
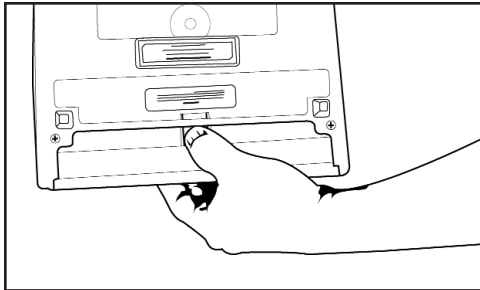
When the batteries are fully charged, the Porta Printer will operate for about 2 hours. The batteries will automatically recharge whenever the unit is plugged into the AC charger/adapter and the unit is turned OFF.
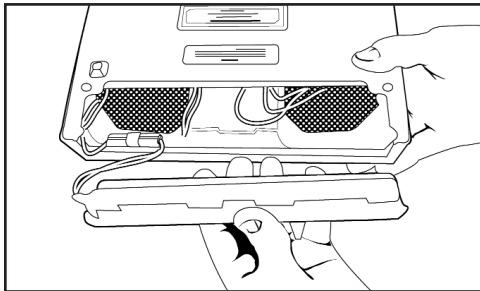
If you are using your Porta Printer on battery power and the red Power Light starts to flash on and off (BRIGHT - dim - BRIGHT - dim), this shows that the battery needs recharging. The light will flash for several minutes. Then the Porta Printer will stop working. When this happens, you must change over to AC power (house electricity) to continue using your machine until you recharge the battery.
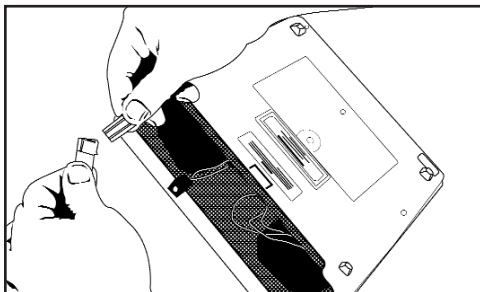
It is suggested that you exercise the battery in your Porta Printer at least once a month. That is, operate the unit on battery power until it needs recharging. Then recharge the battery by plugging in the AC charger/adapter for 12 to 14 hours. (The unit must be turned OFF in order to recharge.) Repeat this cycle at least once a month. When used regularly in this cycle at least once a month. When used regularly in this cycle, the battery should last for about three years.
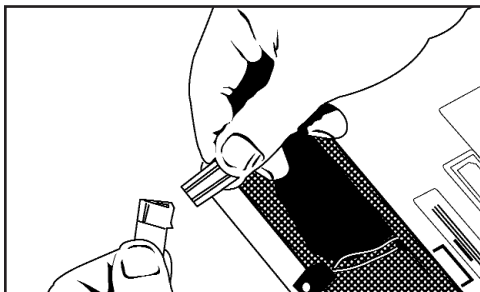
The replaceable, sealed battery pack is a single unit that contains the battery, connector and cover. This unit is located on the underside of the Porta Printer at the back of the unit. Replacement battery packs are available from Krown Manufacturing or your local Krown distributor.

To replace the battery pack, depress the thumb notch in the center of the cover and slide the unit to the back of the TDD. Carefully unplug the connector. Replace with a new battery pack unit.

IX   TECHNICAL SPECIFICATIONS

Keyboard. . . . . 47-key, 4-row keyboard
. . . . 14 function keys

Display . . . . 20 character
. . . . Blue/green vacuum fluorescent

Printer. . . . . 20/24/12 column multi-wide thermal printer
. . . . Printer speed: 2 lines per second
. . . . Receive characters printed in ALL CAPITAL LETTERS
. . . . Transmit characters printed in lowercase letters
. . . . 2 $\frac{1}{4}$" wide paper

Communications . . . . Baudot code, 45.5 Baud
. . . . 1 start bit, 5 data bits, 1.5 stops bits
. . . . International (50 Baud) speed selectable
. . . . Acoustically coupled to round and rectangular handsets

Power. . . . . AC charger/adapter: Model 48DT-7
. . . . UL listed

Battery. . . . . Customer replaceable Ni-Cad rechargeable battery pack

Physical Dimensions . . . . Size: W 9 $\frac{1}{2}$" (24.2mm), L 12 $\frac{1}{2}$" (32.5mm), H 2 $\frac{3}{4}$" (7mm)

Weight . . . . 3.92 lb.

X IMPORTANT INFORMATION

TAKING CARE OF YOUR TDD

- CAUTION: The adapters are NOT interchangeable. You MUST use the adapter that comes with your TDD.
- Be sure to turn your machine OFF when not in use.
- Keep your machine away from extreme temperatures - HOT or COLD.
- Avoid dropping or shaking the unit. Electronic devices are very fragile.
- Keep the unit as dust-free as possible. (Dust covers are available from Krown Manufacturing.)
- NEVER run the printer without paper.
- NEVER pull the paper out without pressing the [RETURN] key.
- When traveling by air, carry your Memory Printer as hand luggage. At the security check, DO NOT allow your TDD to go through X-ray. Ask for visual inspection. DO NOT CHECK IT AS BAGGAGE.

TROUBLESHOOTING

Q: Sometimes nothing happens when my TDD is turned ON. Any suggest?
A: Be sure the telephone cord is to your LEFT. Check the AC adapter/charger to make sure it is properly connected to the Porta Printer.

Q: Why won't my printer print?
A: Your paper may be install wrong. See page 29 for information on loading paper.

| CTRL | + | Q | To test the printer, press and hold down the [CTRL] and [Q] keys at the same time. A test message prints: "THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG 1234567890." |

| CTRL | + | 9 | To end the test, again press and hold the [CTRL] and [9] keys at the same time. |

XI MISCELLANEOUS INFORMATION

COMMONLY USED TDD ABBREVIATIONS

Users of TDDs often abbreviate commonly used words or expressions to save time. The following abbreviations are a sampling of those most frequently used. It is common to omit punctuation.

ANS. . . . . Answer	R . . . . Are
CUD. . . . . Could	REC . . . . Receive
GA . . . . Go Ahead	SK . . . . Stop Keying
LTR . . . . Letter	THRU. . . . . Through
MSG. . . . . Message	THX . . . . Thank You
MIN . . . . Minute	U. . . . . You
NITE. . . . . Night	UR . . . . Your
PLS . . . . Please	WUD. . . . . Would
QQ. . . . . Question	XOX . . . . . Hugs & Kisses

SPECIAL TTY/TDD OPERATOR SERVICES (800) 833-3232

This special toll free TDD operator number can help you with
- Directory Assistance calls
- Credit card calls
- Collect calls
- Third party telephone calls
- Person to person calls
- Calls from a hotel or motel
- Calls from a coin phone (for collect, third party or credit card calls)

The TDD operator can also:
- Reach a number you have a problem getting
- Arrange credit on any misdialed numbers
- Report any problem with your telephone
- Check to see if a TDD is available at the number being dialed
- Tell you what a voice recording says if the number you dialed has an answering machine.

Ask your telephone company for the booklet that tells you how to use TDD/TTY operator services.

XII   FCC REQUIRED INFORMATION

Your Porta Printer has been granted a registration number by the Federal Communications Commission under Part 68 Rules ad Regulations for direct connection to the telephone lines. The FCC requires that you be advised of the requirements involved with owning a telecommunications device.

1. Connect your Porta Printer to the nationwide telephone network through a telephone company-provided registered jack.

You Porta Printer cannot be plugged into a party line or directly connected to coin telephone service: you must use the acoustic coupler in these instances.

2. Before connecting your Porta Printer, the FCC requires that you notify your local phone company Business Office. Call or write your TDD operator. The phone number and address is in the front of your phone book.

Your phone company will want to know:
- Your phone number
- Product name: Krown Porta Printer
- FCC registration number: B0487D-71481-DT-E
- Ringer equivalence: 0.4A 0.7B
- Jack RJII RJI3

The FCC requires that you notify your local telephone company when you move your phone permanently.

3. Repair may be made only by Krown Manufacturing or authorized Krown service agencies. This applies at any time during or after warranty. If any such unauthorized repair is performed, registration, connection to the telephone lines and the remainder of warranty period all become null and void.

4. If your Porta Printer causes harm to the telephone network, the telephone company may temporarily discontinue your service. If possible, they will notify you in advance. But if advanced notice is not practical, you will be notified as soon as possible. You will be given the opportunity to correct the situation, and you will be informed of your right to file a complaint with the FCC.

5. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your Porta Printer. If changes occur, you will be notified in advance to give you an opportunity to maintain uninterrupted service.

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