P$_C$OS SERIES 80PLUS

POS Thermal Printer
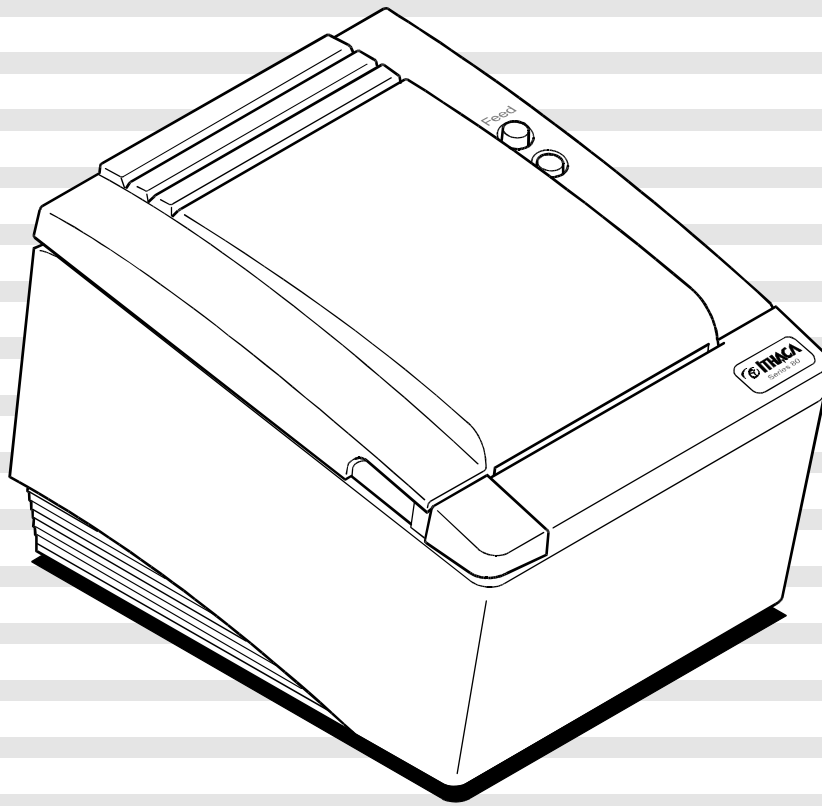
OPERATOR'S GUIDE

ithaca®

a product of **TRANS**ACT

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE BOTTOM OF PRINTER
NO USER - SERVICEABLE PARTS INSIDE

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

WARNING: To prevent fire or shock hazard, do not
expose this printer to rain or moisture.

Disclaimer

Copyright

Federal Communications Commission
Radio Frequency Interference Statement

The Series 80PLUS Printer complies with the limits for a Class A computing device in accordance with the specifications in Part 15 of FCC rules, which are designed to minimize radio frequency interference during installation; however, there is no guarantee that radio or television interference will not occur during any particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on while the radio or television is on, the user is encouraged to try to correct the interference by one or more of the following measures:

♦ Reorient the radio or television receiving antenna

♦ Relocate the printer with respect to the receiver

♦ Plug the printer and receiver into different circuits

If necessary, the user should consult their dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: *How to Identify and Resolve Radio/TV Interference Problems*. This booklet is available from the US Government Printing Office, Washington, DC 20402. Ask for stock number 004-000-00345-4.

Canadian Department of Communications Radio Interference Statement

The Series 80PLUS Printer does not exceed Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

UL, CSA, VDE, CE Statement

TransAct Technologies' Series 80PLUS Printers are UL and CSA Listed, VDE Certified, and carry the CE Mark.

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ABOUT THE SERIES 80PLUS PRINTER

ABOUT THIS OPERATOR'S GUIDE

WHO SHOULD READ THIS BOOK?

This book is intended for new and experienced operators. If you are going to set up, use, or maintain a Series 80PLUS Printer with any point-of-sale system, then this book is for you.

WHAT IS COVERED IN THIS BOOK?

This book only covers the Series 80PLUS Printer, not the entire point-of-sale system, but it will tell you all you need to know about using the printer properly. You will find out what supplies you need to order, how to set up and test the printer, and how to do the common tasks listed here:

♦   Change the paper

♦   Correct problems

♦   Clean the printer

This book also provides some general and technical information about the printer, so you will know what the features are, how reliable it is, and what its printing capabilities are.

WHERE CAN YOU FIND MORE INFORMATION?

A *Programmer's Guide* is available to help you program a point-of-sale terminal or personal computer to work with the printer. It describes all the commands the printer recognizes to perform its functions.

A *Maintenance Manual* is also available. It shows how to repair the Series 80PLUS Printer and lists the replacement parts. The *Maintenance Manual* is intended for trained, service technicians.

For information about ordering these books, refer to the next section.

CONTACTING TRANSACT'S ITHACA FACILITY

Contact TransAct's Ithaca facility for general information about the 80PLUS Printer and how it works with your system. The Sales and Technical Support Departments will be able to help you with most of your questions. Call the Technical Support Department to receive technical support; order documentation; receive additional information about the 80PLUS; or send in a printer for service. To order supplies; receive information about other Ithaca products; or obtain information about your warranty, contact the Sales Department. To receive information on International distribution, look on our web site at www.transact-tech.com

You may reach both the Sales and Technical Support Departments at the following address and telephone or fax numbers:

TransAct Technologies Incorporated
Ithaca Facility
20 Bomax Drive
Ithaca, NY 14850 USA

Telephone	(877) 7ithaca or (607) 257-8901
Main fax	(607) 257-8922
Sales fax	(607) 257-3868
Technical Support fax	(607) 257-3911
Web site	http://www.transact-tech.com

WARRANTY INFORMATION

OPTIONS

All TransAct PCOS (personal computer, point-of-sale) Series 80PLUS Printers come with a standard 24-month warranty covering both parts and labor that starts upon shipment from the factory. An optional warranty, covering both parts and labor for an additional 12 months, may be purchased separately.

For more information concerning the warranty options, please contact your dealer or the Sales Department at TransAct's Ithaca facility. See "Contacting TransAct's Ithaca facility" on page 2.

SERVICE INFORMATION

TransAct has a full service organization to meet your printer service and repair requirements. If your printer needs service, please directly contact the Technical Support Department for a return authorization. See "Contacting TransAct's Ithaca facility" on page 2.

TransAct offers the following service programs to meet your needs:

♦   Extended Warranties

♦   Depot Repairs

♦   Maintenance Contracts

♦   Internet Support

ORDERING SUPPLIES

Your POSjet supplies can be ordered easily direct from TransAct via our website (www.transact-tech.com) or our telephone number (within the US toll free: (877) 7ithaca). (other inquires: (607) 257-8901). When calling by phone, please ask for the Sales Department. See "Contacting TransAct's Ithaca facility" on page 2 for more details.

The following items may be ordered:

♦ Paper

♦ Cables

PAPER

Paper	Type	Dimensions	Stock Number
Receipt paper	Thermal	Width: 3.15 inches (80 mm) Diameter: 4.00 inches (100 mm) Length: 420 feet (128 m)	100-9109

CABLES

Cables	Stock Number
110V Power cable	06-0561
230V Power cable	06-0806
Parallel communication cable 25-pin male to 25-pin male	253-9800007
Serial communication cable PC, 9-pin female to 9-pin female PC, 9-pin female to 25-pin female	10-2020 10-2021

DESCRIPTION OF THE SERIES 80PLUS PRINTER
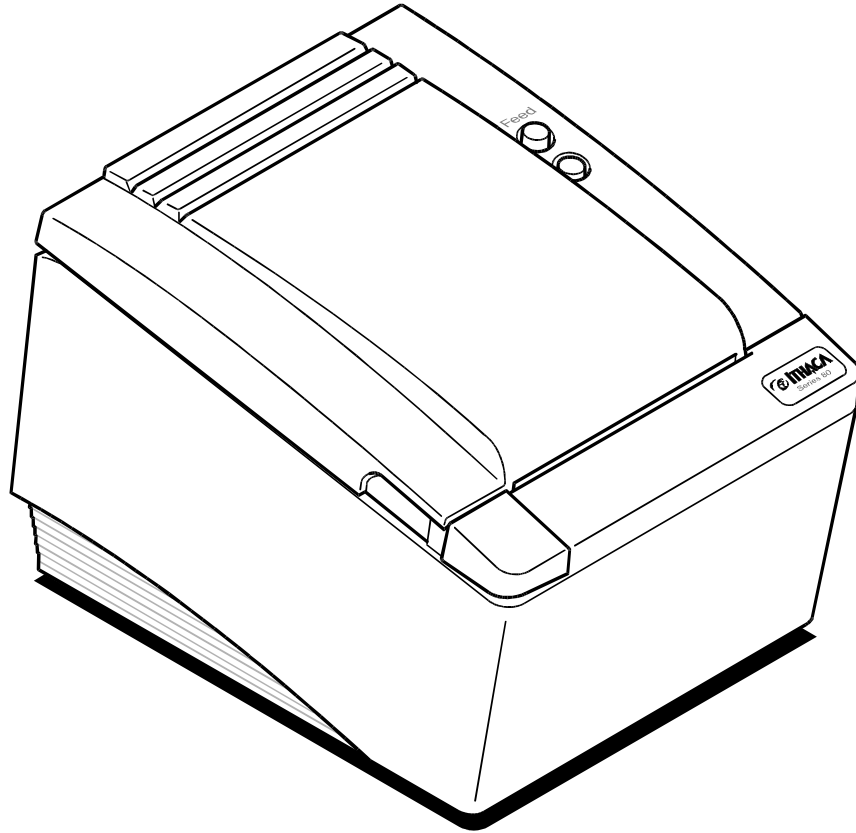
The PcOS Series 80PLUS Printer is a stand-alone, 40-column, thermal printer. The Series 80PLUS Printer performs high-speed receipt printing in a point-of-sale environment.

SERIES 80PLUS PRINTER

PRINT SPEEDS			
TEXT (6 lpi)	TEXT (8 lpi)	GRAPHICS	POWER SUPPLY
31.8 lps	42.5 lps	5.3 in/s (135 mm/s)	48 watts (minimum required)

STANDARD FEATURES

The following features and items are standard on all Series 80PLUS Printers

♦ 44-column printing at 15.6 characters per inch

♦ 4.0-inch (100-mm) diameter thermal paper roll

♦ 420 feet (128 m) of thermal paper per roll

♦ Automatic cutter (partial cut)

♦ Easy paper load

♦ High resolution graphics capability (8 dots per mm)

♦ RS-232C serial interface with adjustable buffer (8K default)

♦ Epson TM-T8x, Axiohm 7193, M50, or 80PLUS emulation

♦ Paper out sensor

♦ Operator controlled self-test

♦ Dual cash drawer connectors (RJ11) and drivers (24V, 1.2 amp
   pulse for approximately 150 ms; drawer open/closed status reporting)

♦   Characters and Graphics

Text print speed - 5.3 inches (135 mm) per second

Paper slew speed - 5.3 inches (135 mm) per second

Wide print zone - 2.83 inches (72 mm)

8 dots per mm (203 dpi) horizontal and vertical

Various layouts possible using page mode

All-points-addressable (APA) bit map graphics

♦   Reverse video and rotated on the same line

♦   24-month warranty

OPTIONAL FEATURES

The optional features either replace a standard feature or enhance the operation of the printer. All optional features are installed at the factory and must be selected when the printer is ordered.

♦   IEEE 1284 bidirectional parallel

♦   Custom colors and logo

♦   Internal buzzer (for kitchen applications)

RELIABILITY

♦   Mean time between failure: 93,600 hours at 12.5% ratio

♦   Mean cycles between failure: 31,460,800 print lines

♦   Mean time to repair: 15 minutes

♦   Cutter: 1,000,000 cut life

PRINT CHARACTERISTICS

The Series 80PLUS Printer prints characters in a variety of pitches as shown in the following table and print samples. All pitches are scaleable up to eight times horizontally or vertically.

For information about programming the printer to print a particular pitch or style, please refer to the *Programmer's Guide*. You may order the *Programmer's Guide* from TransAct. See "Contacting TransAct's Ithaca facility" on page 2.

Pitch (characters per inch)	Maximum Characters per Line
15.6	44
20.3	57

20.3 CPI UTL
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWX
YZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ ÇüéâäàåçêëèïîìÄÅÉ
ÆÔöòûùÿÖÜ¢£¥₧ƒáíóúñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐└┴┬├─┼╞╟╚╔
╩╦╠═╬╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀αβΓπΣσµτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√ⁿ²■

15.6 CPI UTL
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK
LMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvw
xyz{|}~ ÇüéâäàåçêëèïîìÄÅÉÆÔöòûùÿÖÜ¢£¥₧ƒáíóú
ñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐└┴┬├─┼╞╟╚╔
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ⁿ²■

20.3 CPI Emphasized
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWX
YZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ ÇüéâäàåçêëèïîìÄÅÉ
ÆÔöòûùÿÖÜ¢£¥₧ƒáíóúñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐└┴┬├─┼╞╟╚╔
╩╦╠═╬╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀αβΓπΣσµτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√ⁿ²■
&%PRO

15.6 CPI Emphasized
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK
LMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvw
xyz{|}~ ÇüéâäàåçêëèïîìÄÅÉÆÔöòûùÿÖÜ¢£¥₧ƒáíóú
ñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐└┴┬├─┼╞╟╚╔
╩╦╠═╬╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀αβΓπΣσµτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√
ⁿ²■

7.8 CPI UTL Dbl-width
!"#$%&'()*+,-./012345
6789:;<=>?@ABCDEFGHIJK
LMNOPQRSTUVWXYZ[\]^_`a
bcdefghijklmnopqrstuvw
xyz{|}~ Çüéâäàåçêëèïîì
ÄÅÉÆÔöòûùÿÖÜ¢£¥₧ƒáíóú
ñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕
║╗╝╜╛┐└┴┬├─┼╞╟╚╔╩╦╠═╬
╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀αβΓσ
µτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√
ⁿ²■

10.1 CPI UTL Double-width
!"#$%&'()*+,-./0123456789:;
<=>?@ABCDEFGHIJKLMNOPQRSTUVW
XYZ[\]^_`abcdefghijklmnopqrs
tuvwxyz{|}~ ÇüéâäàåçêëèïîìÄÅ
ÉÆÔöòûùÿÖÜ¢£¥₧ƒáíóúñÑªº¿⌐¬½
¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐└┴┬├─┼╞╟
╚╔╩╦╠═╬╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀αβΓπ
ΣσµτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√ⁿ²■

```
7.8 CPI UTL Db
l-width/height
 !"#$%&'()*+,-
./0123456789:;
<=>?@ABCDEFGHI
JKLMNOPQRSTUVW
XYZ[\]^_`abcde
fghijklmnopqrs
tuvwxyz{|}~ Çü
éâäàåçêëèïîìÄÅ
ÉæÆôöòûùÿÖÜ¢£¥
₧ƒáíóúñÑªº¿⌐¬½¼
¡«»░▒▓│┤╡╢╖╕╣║
╗╝╜╛┐└┴┬├─┼╞╟
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Σσμτ⌽ΘΩδ∞∅∈∩≡±
≥≤⌠⌡÷≈°∙·√ⁿ²■
```

```
10.1 CPI UTL Dbl-wi
dth/height
 !"#$%&'()*+,-./012
3456789:;<=>?@ABCDE
FGHIJKLMNOPQRSTUVWX
YZ[\]^_`abcdefghijk
lmnopqrstuvwxyz{|}~
 ÇüéâäàåçêëèïîìÄÅÉæ
ÆôöòûùÿÖÜ¢£¥₧ƒáíóún
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╕╣║╗╝╜╛┐└┴┬├─┼╞╟╚╔
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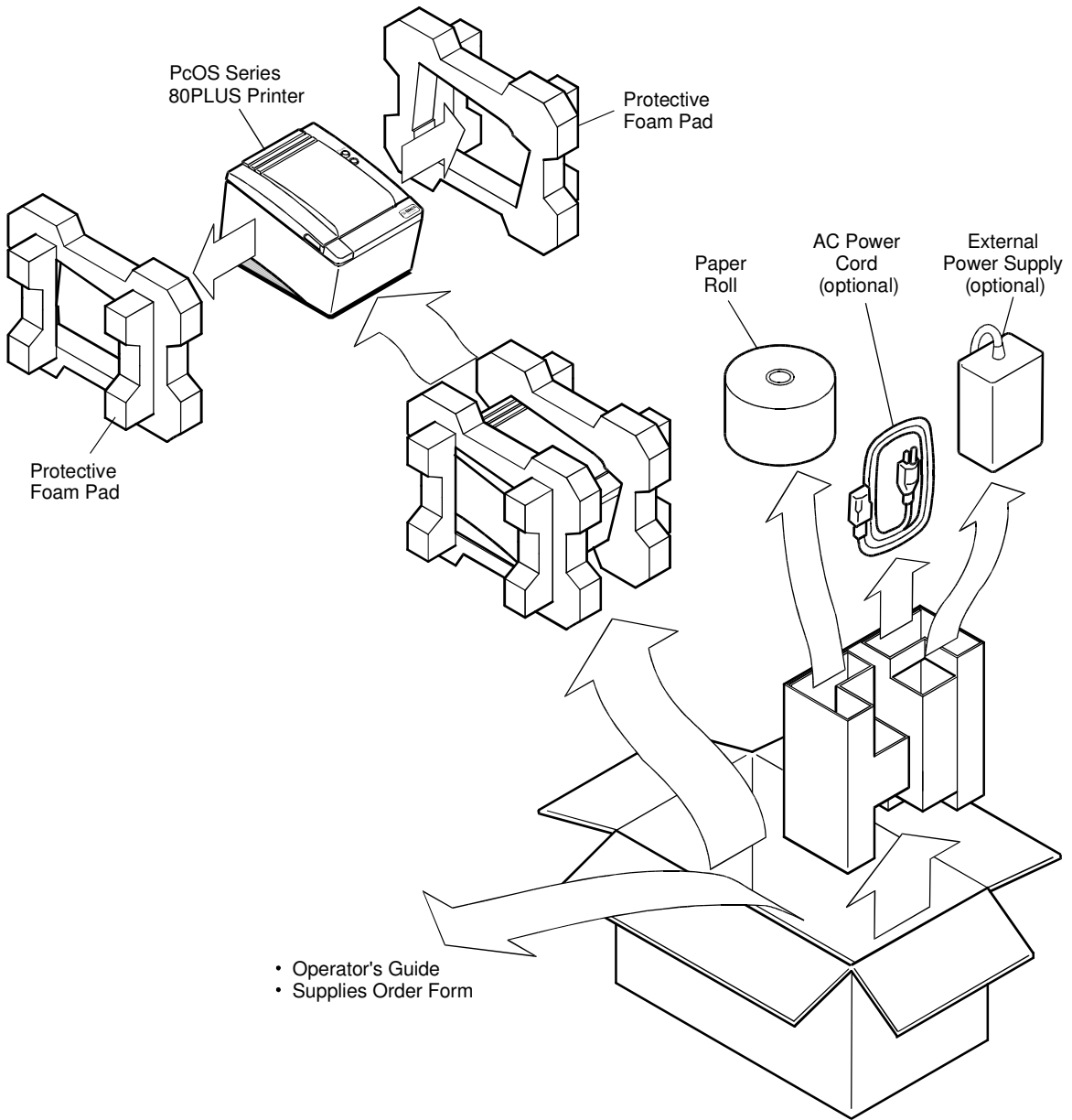
SETTIN   UP THE PRINTER

By following the instructions in this chapter, the Series 80PLUS Printer should be ready to hook up to your system in just a few minutes.

Here is a list of what is covered in this chapter:

♦   Unpacking the printer

♦   Choosing a location for the printer

♦   Connecting the power cord

♦   Loading paper

♦   Testing the printer

♦   Connecting the communication and cash drawer cables

UNPACKING THE PRINTER

PcOS Series
80PLUS Printer

Protective
Foam Pad

Protective
Foam Pad

Paper
Roll

AC Power
Cord
(optional)

External
Power Supply
(optional)

• Operator's Guide
• Supplies Order Form

Note: Be sure to save the box and packing materials in case you need to send the printer in for service.

1. Before removing the printer, examine the outside of the box for signs of damage.

   If any damage has occurred to the box, carefully examine the printer and accessories before setting up the printer. Report all evidence of damage or abuse to your dealer and shipper.

2. Open the box, and remove the unpacking and supplies envelope.

3. Carefully lift the printer out of the box, and set it on a sturdy, flat surface.

4. Separate the printer from the packing material.

   Simply reverse these steps if you need to repack the printer to send in for service. (You will not need to repack the supplies).

5. Check the printer and accessories for any signs of damage.

   If the printer or any parts are damaged, report this to your dealer and shipper immediately.

CHECK THAT ALL ITEMS ARE PRESENT

The following items are packed in the box and supplies envelope. If any items are missing, contact your dealer, or if you purchased the printer directly from TransAct, contact the Sales Department. Please refer to "Contacting TransAct's Ithaca facility" on page 2.

- ♦ PcOS Series 80PLUS Operator's Guide

- ♦ Warranty sheet

- ♦ Supplies order form

- ♦ Printer

- ♦ Supplies envelope

- ♦ Paper roll

- ♦ External power supply (optional)

- ♦ AC power cord (optional)

CHOOSING A LOCATION FOR THE PRINTER

The Series 80PLUS Printer is designed to be placed on point-of-sale terminals, counter tops, or any other flat, stable surface that can support the weight of the printer (about 4 pounds or 1.8 kg). Please refer to the dimensions when selecting the best possible location. Be aware of the environmental conditions of the location where you place the printer. Generally, the environment in any store is suitable for operating the printer.

DIMENSIONS

♦   Width: 6.0 inches (152 mm)

♦   Length: 8.5 inches (216 mm)

♦   Height: 5.6 inches (142 mm)

WEIGHT

♦   Approximate weight: 4 pounds (1.8 kg)

ENVIRONMENTAL CONDITIONS

The printer will run at its best when stored and operated in an environment that meets the following temperature and humidity conditions:

♦   Operating temperature: 0° to 40°C (32° to 104°F)

♦   Operating relative humidity: 10% to 90% (noncondensing)

CONNECTING THE POWER CORD

Caution: The printer must be grounded through the three-prong power connector. Do not use a ground-defeating adapter.

Back of Printer

Power Supply Connector

Power Supply Cable

External Power Supply
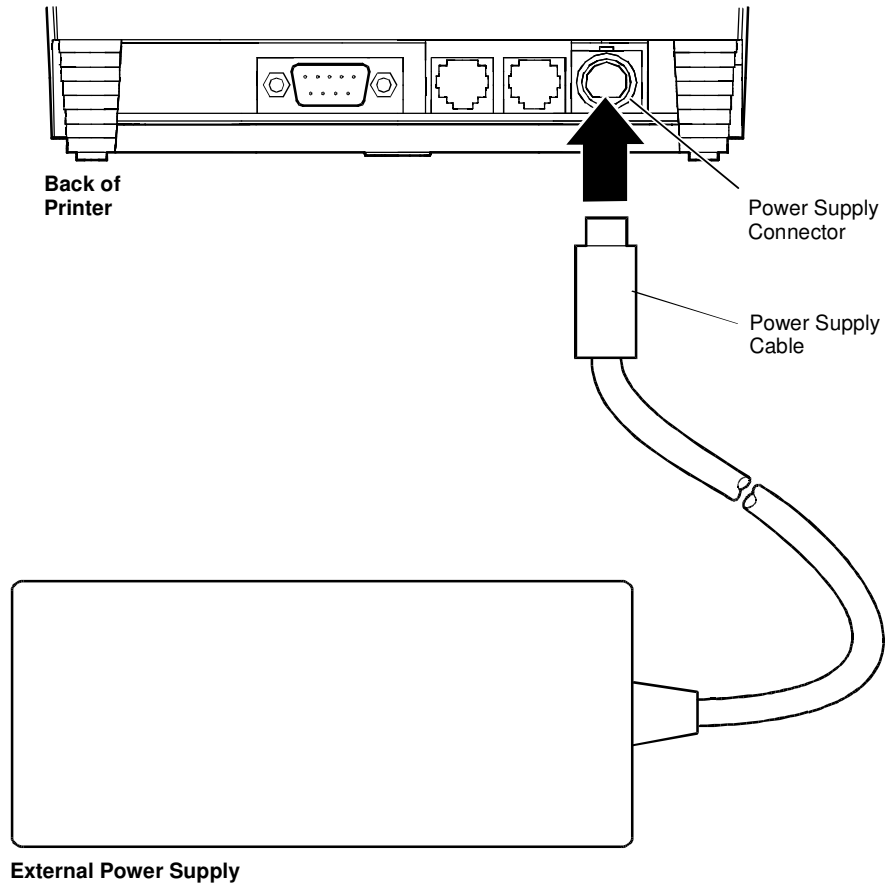
1. Connect the external power supply cable to the power supply connector located on the back of the printer.

External Power Supply
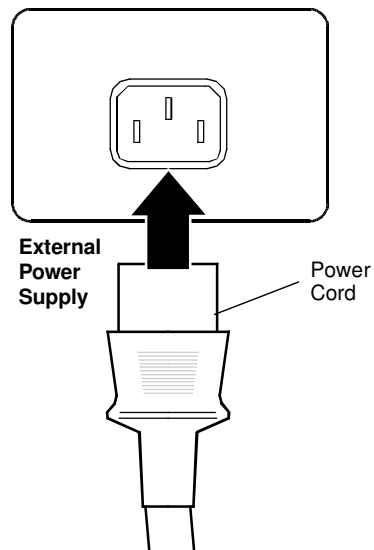
Power Cord

2. Connect the power cord to the external power supply.

3. Plug the power cord into a grounded three-prong power socket.
   The LED turns green indicating the printer is functioning.

   **Note:** The printer takes about 1.5 seconds to begin operation.

LOADING AND REMOVING PAPER

This section describes how to load and remove paper. Change the paper when the status LED flashes. This indicates that the paper is low. The printer will stop. You must change the paper for the printer to resume operation.
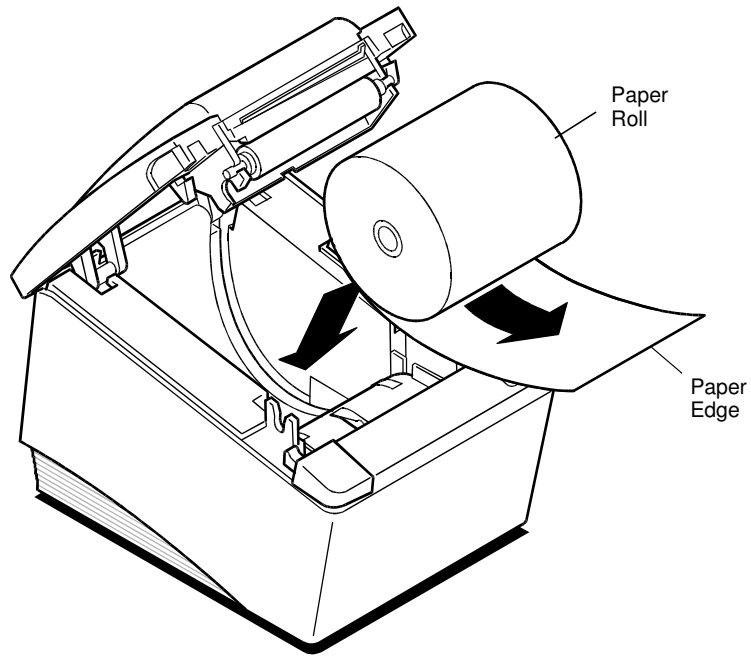
INSTALLING THE NEW PAPER ROLL

Follow these instructions for loading paper.

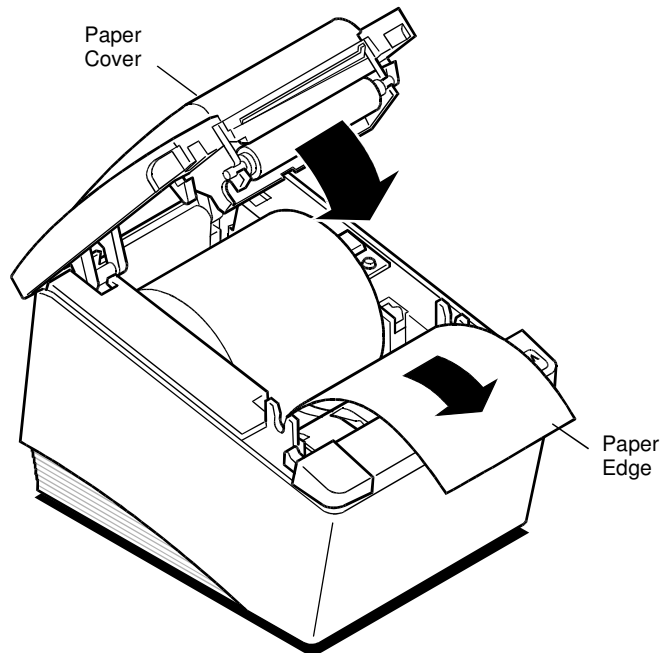**Note:**   If this is a new installation, a receipt roll is supplied with the printer.

Paper
Cover
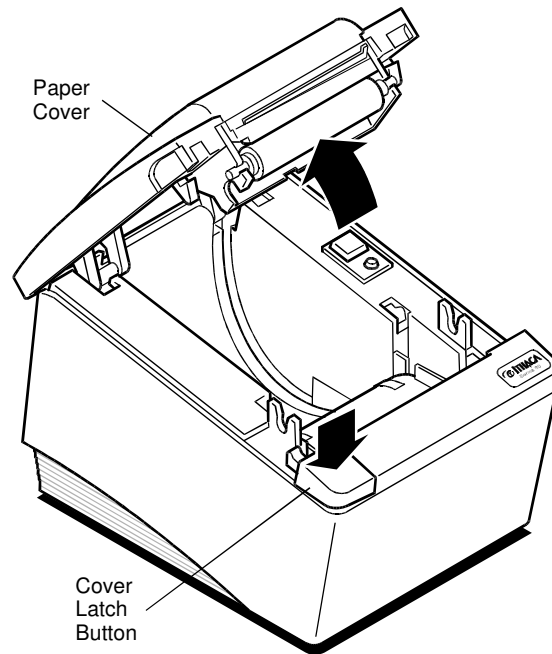
Cover
Latch
Button

1.   Open the paper cover by pressing the cover latch button.

     If you are changing the paper, remove the used supply roll.

Paper
Roll

Paper
Edge

2. Place the paper roll, so the paper unwinds from the bottom (front).

Paper
Cover

Paper
Edge

3. Close the cover.

TESTING THE PRINTER

You may want to test the printer to ensure that it is running properly. The sample on the following page shows what a printout of the test may look like. The test pattern varies depending on the printer model and the character set selected when the printer was ordered.

Run the test after loading the paper, but before connecting it to a host system. If the characters do not print properly, check to make sure the paper is installed correctly.

If the printer is still not working correctly, contact your dealer or the Technical Support Department at TransAct. For more information, see "Contacting TransAct's Ithaca facility" on page 2.

TESTING THE PRINTER

1. Plug the DC power cord from the external power supply into the printer.

2. Plug the AC power cord into the external power supply.

3. Open the printer cover.

4. Plug the AC power cord into a grounded three-prong power socket.

5. The status LED will start flashing after approximately six seconds.

6. Insert a roll of paper into the printer. Leave some paper sticking out, and close the paper cover.

7. The printer will print some technical information.

```
SERIES 80PLUS THERMAL PRINTER

Identification
    Model number     : Default Parallel
    Serial number    : JE123456789
    Flash Firmware   : S038500-D
    Firmware Checksum: 00E7568B


Emulation Mode
    EPSON TM-T85


Print Intensity setting
DARKER 1 2 3 4 5 LIGHTER


P1284 Parallel Interface
    IEEE P1284 modes enabled:
        * Nibble mode
        * Byte mode
    nINIT reset operation: Enabled
    nAck signal operation: Mode 1
    Input Buffer size    : 8,192 bytes


Language Sets
    Resident sets      : 71
    Default language Set: 0


Software Settings
    Carriage Return     : Ignore CR
    Default Line Spacing: 6 LPI
    Graphics buffering  : Enabled


Volatile User definable Memory
    User buffer      : 20,480 bytes
    Page mode buffer: 5.80" length


Nonvolatile Memory

    Object Name        Type      Size
    _____
                       Free Memory: 62,196


Additional Options
    Auto cutter status : Enabled
    Auto cutter setting: Mode 2


Statistics
    Printed Lines:        728
    Inches Fed   :        195
    Cut Cycles   :         86
    Power Cycles :          2
    Hours ON     :          3
    Cover Opens  :          3
    Paper Outs   :          1
    Cash Drawer 1:         40
    Cash Drawer 2:         40
```

<u>Code Set - 0</u>

!"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_
`abcdefghijklmnopqrstuvwxyz{|}~Ω
ÇüéâäàåçêëèïîìÄÅÉæÆôöòûùÿÖÜ¢£¥₧f
áíóúñÑªº¿⌐¬½¼¡«»░▒▓│┤╡╢╖╕╣║╗╝╜╛┐
└┴┬├─┼╞╟╚╔╩╦╠═╬╧╨╤╥╙╘╒╓╫╪┘┌█▄▌▐▀
αβΓπΣσμτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√ⁿ²∎

<u>Code Set - 0</u>

!"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_
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ÇüéâäàåçêëèïîìÄÅÉæÆôöòûùÿÖÜ¢£¥₧f
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αβΓπΣσμτΦΘΩδ∞φε∩≡±≥≤⌠⌡÷≈°∙·√ⁿ²∎

** TESTING COMPLETE **

CONNECTING THE CABLES

Now that you have set up and tested the printer,
you are ready to connect it to the point-of-sale system.

CONNECTING THE COMMUNICATION CABLE

Depending on the interface your system uses, either connect the serial or
parallel communication cable to the appropriate connector on the back
of the printer.

Cables are provided by your dealer or the system installer. If cables are
unavailable, contact TransAct. See "Contacting TransAct's Ithaca facility"
on page 2.

Connect the Serial Cable
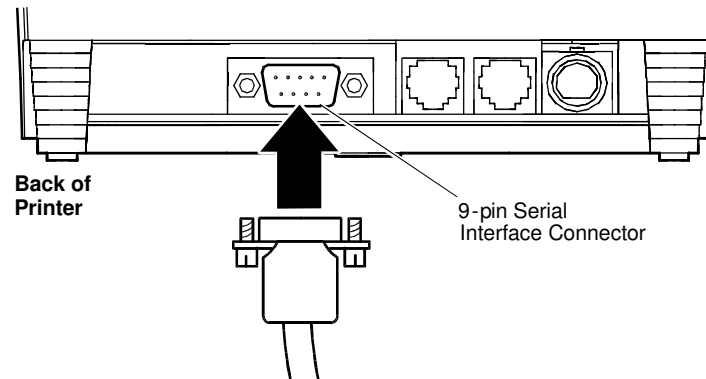
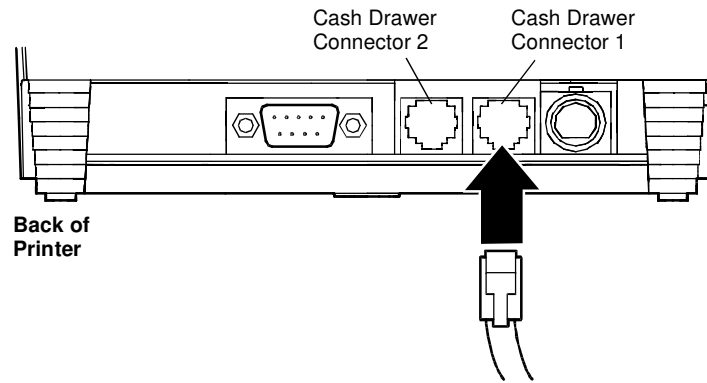**Back of Printer**

9-pin Serial
Interface Connector

1. Unplug the AC power cord from the grounded three-prong power
   socket, and turn off the host system or personal computer.

2. Connect the 9-pin serial interface cable to the
   connector located on the back of the printer.

   Refer to the Appendix for information on the serial cable requirements.

3. Tighten the two mounting screws on each side of the cable connector.

Connect the Parallel Cable
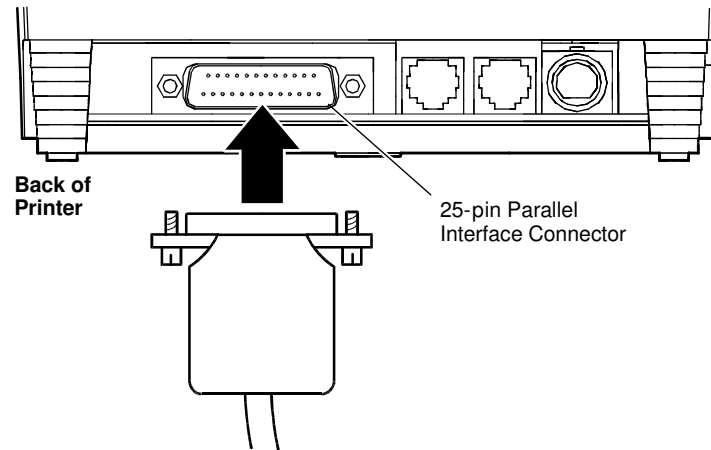
**Back of
Printer**

25-pin Parallel
Interface Connector

1. Unplug the AC power cord from the grounded three-prong power
    socket, and turn off the host system or personal computer.

2. Connect the 25-pin parallel interface cable to the
    connector located on the back of the printer.

    Refer to the Appendix for information on the parallel cable requirements.

3. Tighten the two mounting screws on each side of the cable connector.

CONNECTING THE CASH DRAWER CABLES

Cash Drawer
Connector 2

Cash Drawer
Connector 1

**Back of
Printer**

1. Unplug the AC power cord from the grounded three-prong power socket.

2. Connect the cash drawer cable to the connectors
    located on the back of the printer.

    Adapters are available for connecting cash drawers equipped with
    BNC style connectors (the standard is a modular, telephone connector).
    Optional cash drawer connections to emulate Axiohm or Epson must be
    ordered with the printer.

    If you need an adapter, contact the Technical Support Department at
    TransAct's Ithaca facility. See "Contacting TransAct's Ithaca facility"
    on page 2.

SETUP CHECKLIST

Did you follow all of the steps to set up the printer?
Here they are again for you to check.

❑ Unpack the printer.

❑ Choose a location for the printer.

❑ Check the environmental conditions.

❑ Connect the power cord.

❑ Load the paper.

❑ Test the printer.

❑ Connect the communication and cash drawer cables.

OPERATIN THE PRINTER

Once the printer has been setup, there is little that you need to do during daily operation because most functions are controlled by the host system. This chapter describes the following few tasks that you will need to perform, some more often than others:

♦ Operating the keypad

♦ Cleaning the printer

♦ Cleaning the thermal print head

Note: For instructions on changing the paper, see "Loading and Removing Paper" on page 18.

OPERATING THE KEYPAD

FEED
Button

LED

Top of Printer
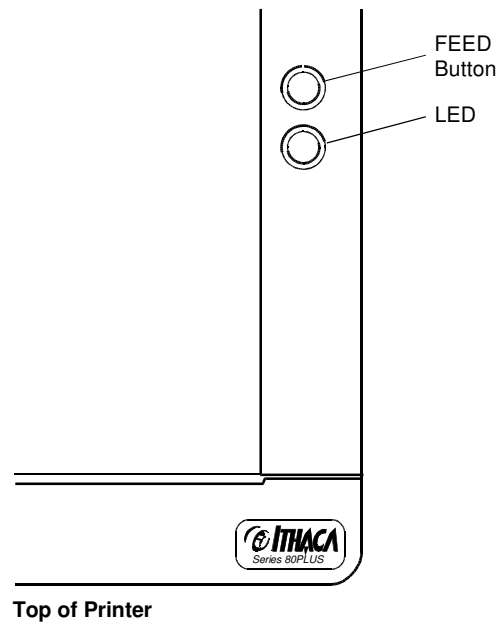
The keypad contains one button and one status LED for easy operation.

STATUS LED

There is a single status LED to display one-line and error conditions. The table below describes the types of error conditions possible and patterns that the LED will flash under those conditions.

ERROR CODE DIAGNOSIS

DESCRIPTION

The Series 80PLUS PcOS thermal printer uses a single status LED to display on-line and error conditions. The tables below describe the types of error conditions possible and the patterns that the LED will flash for those conditions.

KEY TO GRAPHICAL REPRESENTATION

█   = LED is On for 0.5 second

▌   = LED is On for 0.1 second

_   = LED is Off for 0.5 second

_   = LED is Off for 0.1 second

IN ORDER OR PRECEDENCE

Error Condition Present	Graphical Representation	Verbal Description
QSM RAM ERROR	____ █ █ █ █ █ █ █ ____	7 quick flashes
RAM ERROR	____ █ █ ____	2 quick flashes
EEPROM VERIFY ERROR	____ █ █ █ █ █ █ ____	6 quick flashes
CHECKSUM VERIFY ERROR	__ ▌▌▌▌▌ __	5 quick flashes
THERMAL HEAD OVERHEAT	▌ ▌ ▌ ▌ ▌ ▌ ▌	rapid, continuous
CUTTER ERROR	____ █ █ █ ____	3 quick flashes
COVER OPEN	█ █ █ █ █ █ _	continuous
PAPER OUT	____ ██████ ____ ██████ ____	slow, continuous

BUTTONS

The printer has a FEED button that advances receipt paper.

CLEANING THE PRINTER

Cleaning the printer occasionally and keeping it well maintained will help it to last longer and run better.

Caution: Do not use rubbing alcohol or any kind of cleaner on any internal parts of the printer, as some parts may crack or break as a result.

CLEANING THE THERMAL PRINT HEAD

Under normal conditions the thermal print head does not need cleaning.

If the print characters are not printing correctly, wipe the thermal print head with alcohol on a lint free cloth.

Caution: Do not get alcohol on any of the other parts of the printer mechanism or cabinetry.

APPEN I

CASH DRAWER PIN ASSIGNMENTS
&PSON' AXIOHM(

Cash Drawer	J7 3-4* Pin #	Epson/Axiohm
1	1	Frame Ground
	2	Drawer Drive - (Ground)
	3	Status Switch +
	4	Drawer Drive + (24V Switched)
	5	Drawer Drive - (Ground)
		No Connect
	6	Status Switch - (Ground)
2	1	Frame Ground
	2	No Connect
		Drawer Drive - (Ground)
	3	Status Switch +
	4	Drawer Drive + (24V Switched)
	5	Drawer Drive - (Ground)
	6	Status Switch - (Ground)
*This jumper is for compatibility with earlier Epson printers. Pins 3-4 are the default configuration for these jumpers unless ordered.		

Pin 1
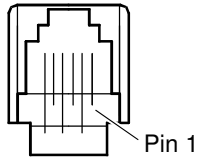
SERIAL CABLE

CABLE RE) UIREMENTS

The PcOS Series 80PLUS Printer requires an RS-232C shielded cable, no more than 50 feet long. The cable must be UL and CSA approved.

RS* 232C COMMUNICATION

The RS-232C interface uses the following protocol and communication characteristics:

♦   Up to 38.4K baud

♦   Up to 32K buffer

♦   Communications diagnostic mode

♦   XON/XOFF, DTR/DSR, CTS/RTS, or CTS/RTS and DTR/DSR protocols

PIN ASSIGNMENTS FOR 9* PIN PRINTER CONNECTOR

Pin	Signal Name	Signal Function	PC Host 9-pin Cross Connect Pin #
1	Received line signal detector	Not used	
2	Serial receive	Input signal to receive data from the host system	3 TX
3	Serial transmit	Output signal sending data to the host system	2 RX
4	Data terminal ready	Output signal to float control the host	6 DSR
5	Ground	Logic ground	5 GND
6	Data set ready	Input signal to float control printer	4 DTR
7	Request to send	Output signal to float control the host	8 CTS
8	Clear to send	Not used	7 RTS
9	Ring indicator		

SERIAL CABLE CONFIGURATIONS

The following cable configurations are for different host requirements.

Serial PC to Series 80PLUS

TransActs' part number 10-2020, 9-pin to 9-pin female cable, is used to connect PcOS Series 80PLUS printers to personal computers or PS/2's with 9-pin serial ports.

```
   Nine-pin                 PN 10-2020            Nine-pin
    Female                                         Female
      PC                                           Printer

   DTR    4  ─────────┐    ┌─────────  DTR    4
   DSR    6  ─┐       └────┘       ┌─  DSR    6
   DCD    1  ─┘                    └─  DCD    1
   TXD    3  ─────────┐    ┌─────────  TXD    3
   RXD    2  ─────────┘    └─────────  RXD    2
   GND    5  ─────────────────────────  GND    5
   RTS    7  ─────────┐    ┌─────────  RTS    7
   CTS    8  ─────────┘    └─────────  CTS    8
```
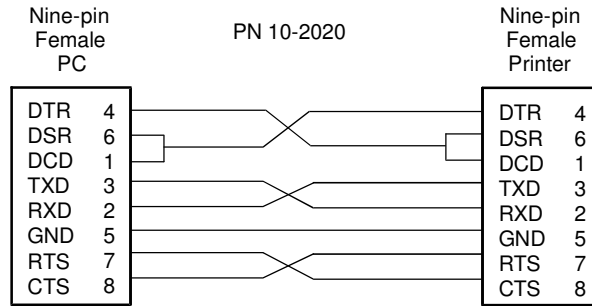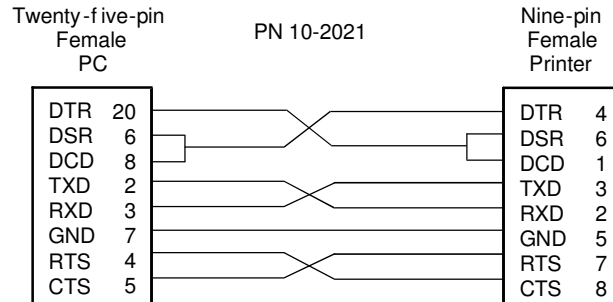
Serial AT to Series 80PLUS

TransActs' part number 10-2021, 25-pin to 9-pin female cable, is used to connect PcOS Series 80PLUS printers to personal computers or PS/2's with 25-pin serial ports.

```
 Twenty-five-pin            PN 10-2021            Nine-pin
    Female                                         Female
      PC                                           Printer

   DTR   20  ─────────┐    ┌─────────  DTR    4
   DSR    6  ─┐       └────┘       ┌─  DSR    6
   DCD    8  ─┘                    └─  DCD    1
   TXD    2  ─────────┐    ┌─────────  TXD    3
   RXD    3  ─────────┘    └─────────  RXD    2
   GND    7  ─────────────────────────  GND    5
   RTS    4  ─────────┐    ┌─────────  RTS    7
   CTS    5  ─────────┘    └─────────  CTS    8
```

PARALLEL CABLE

CABLE RE) UIREMENTS

The PcOS Series 80PLUS Printer requires a 25-pin male D-shell connector at the printer. To connect the printer to most personal computers, use TransActs' part number 253-9800007, 25-pin male to 25-pin male parallel interconnect cable.

PIN ASSIGNMENTS

Pin(s)	Signal	Description	Direction
1	STROBE	Clock data to printer	Host to Printer
2-9	D0 - D7	Data	Host to Printer
10	ACK\	Printer accepted data	Printer to Host
11	BUSY	Printer busy	Printer to Host
12	PE	Paper out/status	Printer to Host
13	SLCT	Printer selected	Printer to Host
14	AUTOFD	Autofeed paper	Host to Printer
15	ERR\	Printer error	Printer to Host
16	INIT\	Initialize the printer	Host to Printer
17	SLIN	Select printer	Host to Printer
18-25	GND	Ground	