Intermec

User's Guide

EasyCoder E4 Bar Code Label Printer

Contents

Contents, cont.

FCC Notice (United States of America)

WARNING

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

DOC Notice (Canada)

Canadian Dept. of Communication
REGULATIONS COMPLIANCE (DOC-A)

This digital apparatus does not exceed the class A limits for radio noise emissions from a digital apparatus as set out in the radio interference regulations of the Canadian Department of Communication.

Ministère des Communications du Canada
CONFORMITE DE REGLEMENTS (DOC-A)

Le présent appareil numérique n'émet pas de bruits radio-électriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le règlement sur brouillage radioélectrique édicté par le Ministère des Communications du Canada.

GS Notice (Germany)

ALLGEMEINE VORSCHRIFT

Reparaturen oder sonstige Eingriffe, die sich nicht auf normale Bedienung der Maschine beziehen, dürfen ausschließlich nur von einem ausgebildeten, zuständigen Fachmann vorgenommen werden.

EU Standard EN 55022 (The European Union)

WARNING

This is a Class A ITE product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Declaration of Conformity (CE)

We,

Intermec Printer AB
Idrottsvägen 10
Box 123
S-431 22 Mölndal
Sweden

declare under our sole responsibility[1] that the product

EasyCoder E4

to which this declaration relates is in conformity with the following standards

Electrical Safety:
EN 60 950

EMC Emissions:
EN 50 081-1:1992
(EN 55 022:1994, class A
EN 61 000-3-2:1995, class A)

EMC Susceptibility:
EN 50 082:1992
(IEC 801-2:1984
IEC 801-3:1984,
IEC 801-4:1988)

following the provisions of Directives

89/336/EEC and **73/23/EEC**

Mölndal 1999-09-01

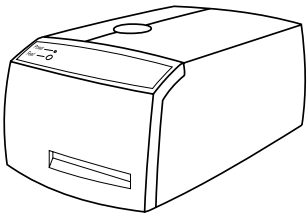
.....

Mats Gunnarsson
President

[1] /. Intermec assumes no responsibility regarding the CE Directive if the printer is handled, modified, or installed in other manners than those described in Intermec's manuals.

Introduction

EasyCoder E4



The EasyCoder E4 printer is a combined thermal transfer and direct thermal printer. It also comes in a LinerLess version, without any thermal transfer ribbon mechanism but with special coating on parts in contact with the LinerLess media. It is simple to operate, and is designed to work with any computing device capable of ASCII output.

The EasyCoder E4 can print labels, tickets, or tags in three ways:

- Tear-off (Straight-through), where the media must be torn off manually against the tear bar. Self-adhesive labels will remain attached to the liner (backing paper) and must be removed by hand.
- Peel-Off (Self-strip), where each self-adhesive label is printed, automatically removed from its liner (backing paper), and presented to the operator. Each subsequent label is held until the Label Taken Sensor shows the previous label has been removed. The liner is wound up on a hub inside the media compartment.
- Cut-off, where continuous stock is automatically cut into tickets or tags using an **optional** paper cutter (not for LinerLess media). The cutter can also cut through the liner between labels.

The EasyCoder E4 printer is fitted with an 8 dots/mm (203.2 dots-per-inch) printhead.

The EasyCoder E4 is provided with its own version of the Intermec Direct Protocol (see *Intermec EasyCoder E4 Direct Protocol, Programmer's Reference Manual*). It is also supported by a series a standard Windows application software packages from Intermec:

- Intermec InterDriver with ActiveX controls allows printing from most programs.
- Intermec LabelShop is a label-formatting program available in a number of versions.
- Intermec PrintSet is a software for setting up EasyCoder printers and printing test labels..

You can connect the host computer to the EasyCoder E4 via the serial RS-232 port or the parallel Centronics port. A PCMCIA port is also provided so that you can fit extra memory cards or a font cards.

Safety

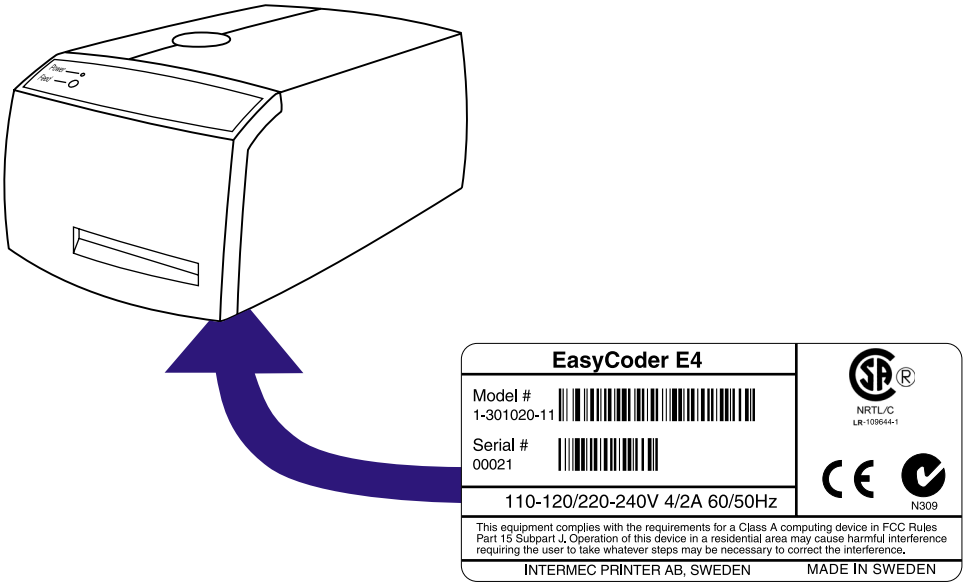
Intermec assumes no responsibility regarding the CE Directive if the printer is handled, modified, or installed in any way other than that described in Intermec's manuals.

Caution

- Read this manual carefully before connecting the printer.
- Moving parts are exposed when the side door is open, so ensure that the door is closed before you operate the printer.
- Do not put your fingers inside the print mechanism when the power is on.
- Place the printer on an even surface which can support its weight of approximately 4.7 kg (10.3 pounds) plus supplies.
- Do not spray the printer with water. If you are using a hose to clean the premises in an industrial environment, remove the printer or protect it carefully from spray and moisture.
- Carefully read the warning text on the envelope before using a cleaning card.
- Do not transport the printer wihout first removing any supplies.

Product Labeling

The machine label is attached to the bottom of the printer and contains information on type, model, and serial number as well as AC voltage. It also contains various signs of approval.

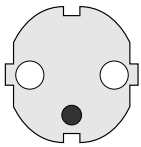


Installation

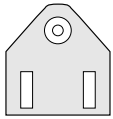
Unpacking

Before you install the printer, examine the package for possible damage or missing parts:

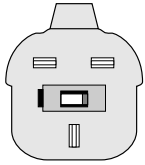
- Open the box and lift the printer out.
- Check that the printer has not been visibly damaged during transportation. Keep the packing materials in case you need to move or reship the printer.
- Check the label on the printer's rear plate, which gives the voltage, the part number, and the serial number.
- Check that any options you ordered are included.
- Check that all the accessories are included. As standard, the box contains:
  - Intermec EasyCoder E4 printer
  - Power cord
  - Parallel interface cable
  - Quality check card
  - Cleaning card
  - Starter pack of labels
  - Starter pack of thermal transfer ribbon (not LinerLess model)
  - Set of manuals
  - Supporting software and product information on CD.
- Check that the power cord is appropriate for the local standard.



European-type 230 VAC plug



US/Canadian-type 115 VAC plug

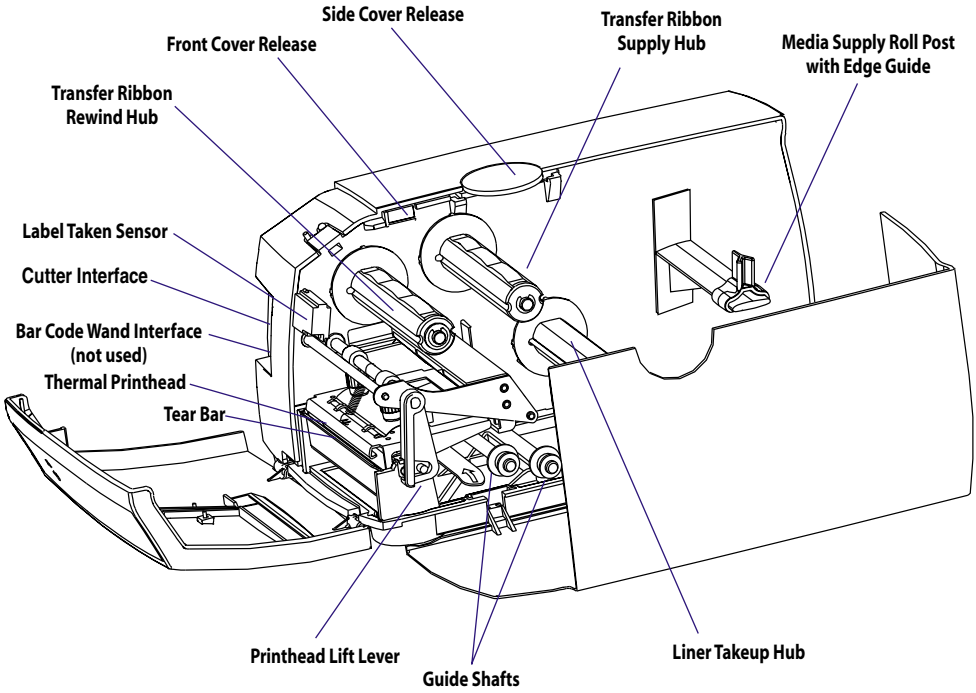


GB-type 230 VAC plug

If the printer has been damaged in any way during transportation, complain to the carrier immediately.

If the delivery is incorrect or any parts are missing, report it immediately to the distributor.

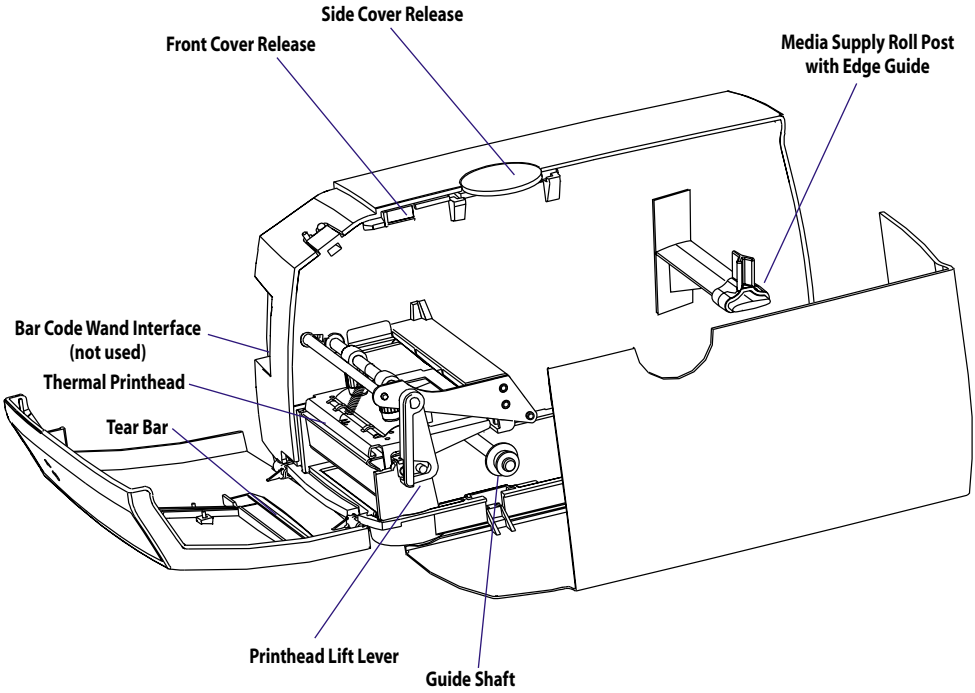
Main Parts – Standard Model



The left side of the case is not designed to be opened by the operator.

In this manual, the standard direct thermal/thermal transfer model is illustrated.

Main Parts – LinerLess Model



The left side of the case is not designed to be opened by the operator.

Connections

Power

1 Place the printer on a level surface, near an AC outlet. You should be able to easily access the printer to load media, to load ribbon, and to remove the printout.
2 Check that the printer is switched off.
3 Connect the power cord to the receptacle on the rear plate and to an electrical outlet (110-120 or 220-240 VAC.)

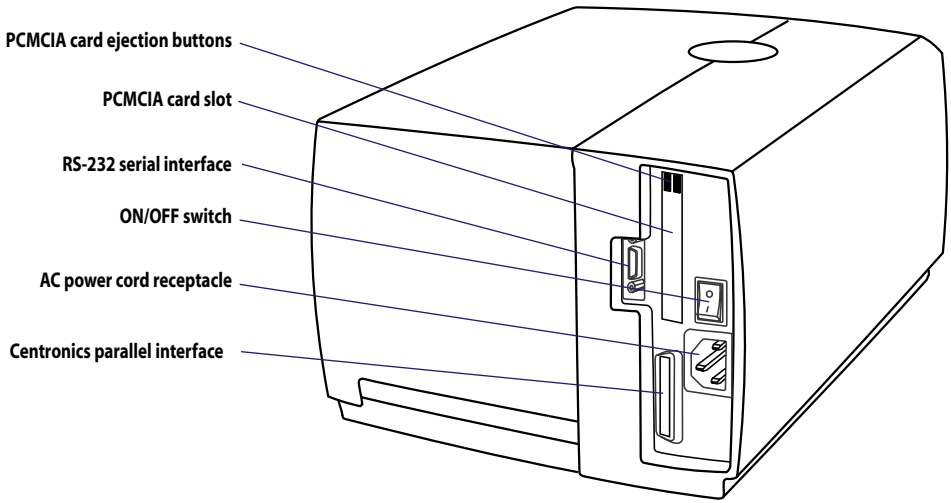
Computer

The EasyCoder E4 is fitted with a 36pin female Centronics connector for the parallel interface port and a DB-9pin female connector for the RS-232 serial interface port.

- *Centronics Parallel Interface:* Use the parallel interface with the Intermec InterDriver (for Windows) because it is faster than the serial interface.
- *RS-232 Serial Interface:* Use the serial interface with the Direct Protocol because you can receive error messages from your printer. This is not available when using the parallel interface.

Switch off both the PC and the EasyCoder E4 before connecting them together.

The EasyCoder E4 is also fitted with a Type 3 PCMCIA slot, which can hold up to two Type 1 or Type 2 PCMCIA cards (5V.) These can be Memory cards or Font cards and are optional.

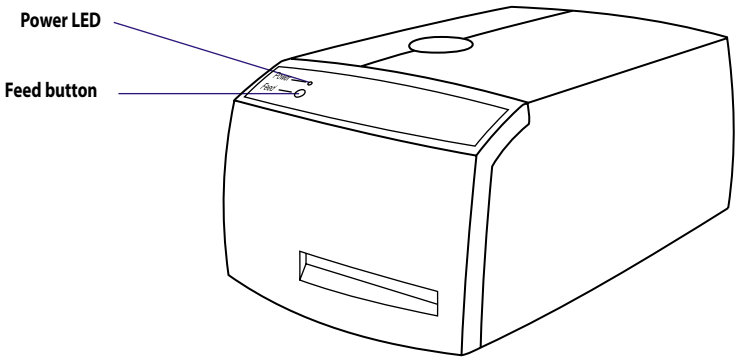


Controls and Indicators

Power LED

The EasyCoder E4 has one control (the **Feed** button) and one indicator (the **Power** LED.) The **Power** LED is tri-colored and indicates the status of the printer.

LED shows	Meaning
No light:	Power off
Green: • Steady • Flashing	 Power on Busy (executing or receiving data)
Amber: • Momentarily	 During power on
Red: • Steady	 Error condition, for example... - Printhead lifted - Out of media - Out of ribbon - Media jam in cutter



Feed Button

Press **Feed** to feed out a blank label, if no label design has been downloaded to the printer.

Press **Feed** to print a label after a label design has been downloaded to the printer and the **Feed** button has been set up to work as a **Print** button (see Chapter 3, "Operation/Printing a Label"). You can also use **Feed** to print a test label (see Chapter 3, "Operation/Printing Test Labels").

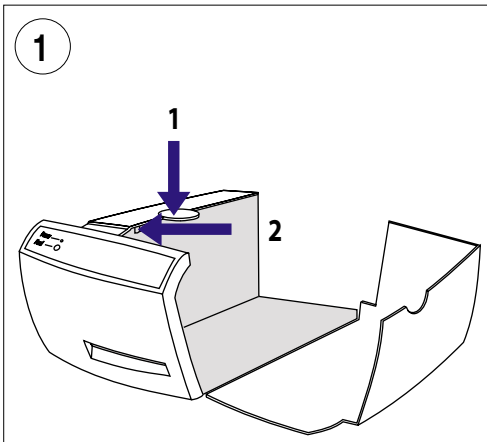
Operation

Media Load – Tear-Off (Straight-through)

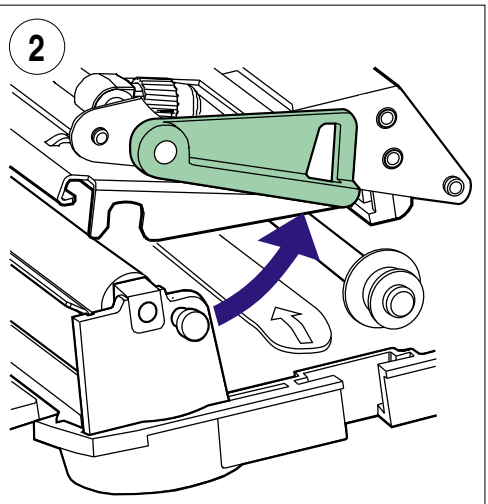
The same loading principles apply to thermal transfer receiving media as well as direct thermal or LinerLess media. All kinds of media can be used. However, LinerLess media requires an EasyCoder E4 LinerLess printer.

Caution!
Before shipping the printer, always remove any roll from the media supply roll post.

HINT!
To facilitate media and ribbon load, you can remove the side cover by opening it halfway (45°) and lift the hinges out of their pockets in the bottom moulding.



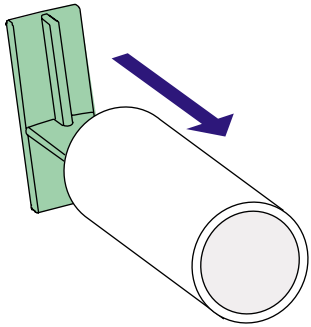
Open the side and front covers.



Turn the printhead lift lever counterclockwise to raise the printhead.

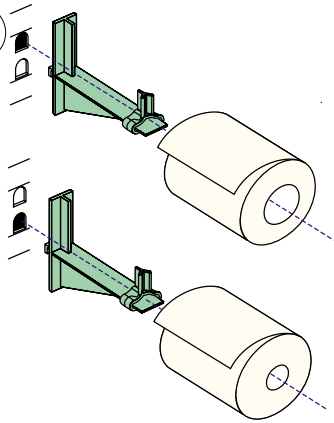
Media Load – Tear-Off, cont.

3



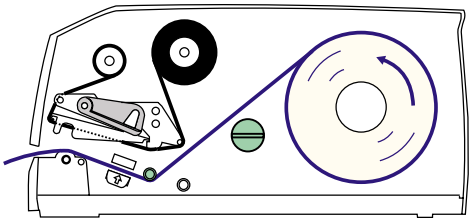
Remove any empty core from the media supply roll post. It is not necessary to remove the edge guide.

4



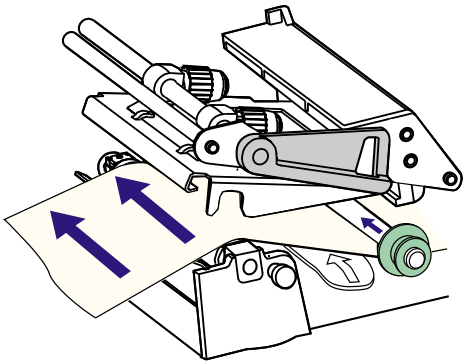
Check that the media supply roll post is in the correct position for the size of the media roll. The post is easier to move if first rotated 1/4 of a turn. Push the new roll as far in as it will go and adjust the edge guide.

5



Route the media between the guide rollers, between the two parts of the ribbon/media sensor, over the platen roller, and out through the feed-out slot.

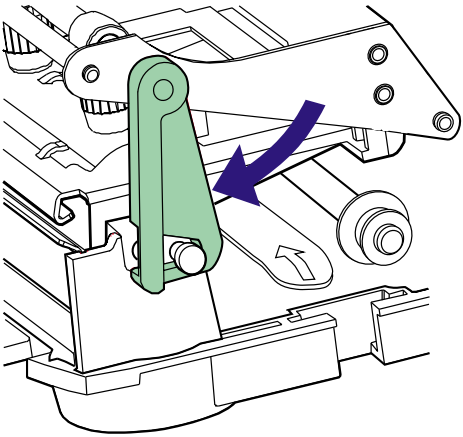
6



Push the media as far in as it will go and adjust the edge guide ring according to the width of the media.

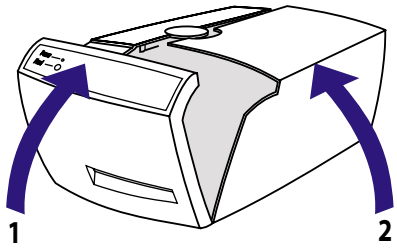
Media Load – Tear-Off, cont.

7



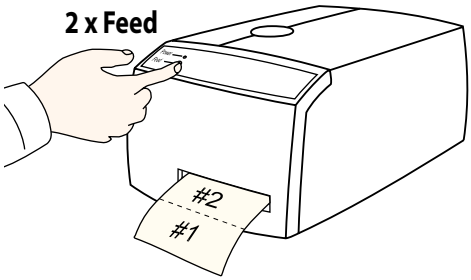
Turn the printhead lift lever clockwise to engage the printhead.

8



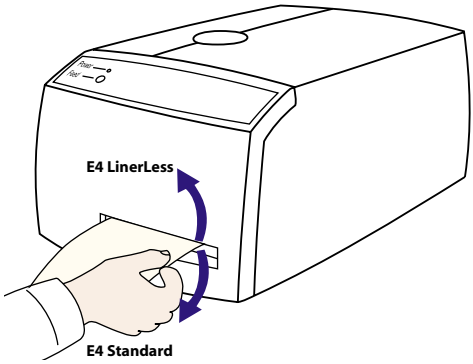
Close the front and side covers.

9



*Print out two blank copies by pressing **Feed** twice. If loading media for the first time or when switching to a new type or brand of media, instead print a test label as described at the end of this chapter.*

10



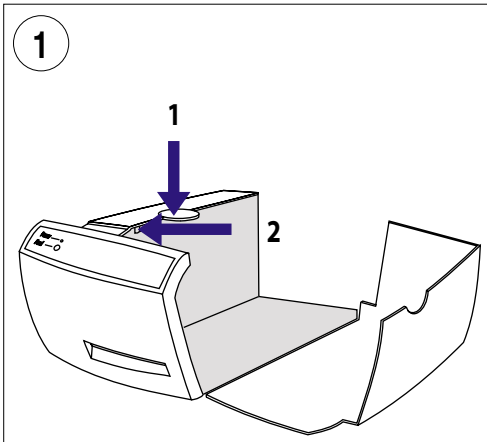
To tear off the media, pull it downwards against the tear bar on standard printers and upwards on LinerLess printers.

Media Load – Peel-Off (Self-strip)

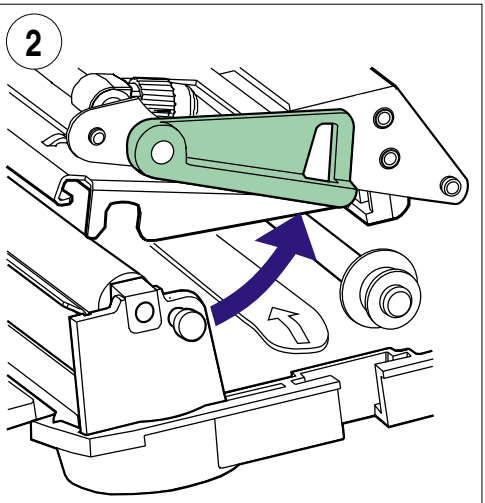
This section describes the case when self-adhesive labels are separated from the liner immediately after printing. The liner is then wound up on an integral liner takeup hub. This is also known as "Self-strip" operation. It cannot be with on the EasyCoder E4 LinerLess printer

Caution!
Before shipping the printer, always remove any roll from the media supply roll post.

HINT!
To facilitate media and ribbon load, you can remove the side cover by opening it halfway (45°) and lift the hinges out of their pockets in the bottom moulding.



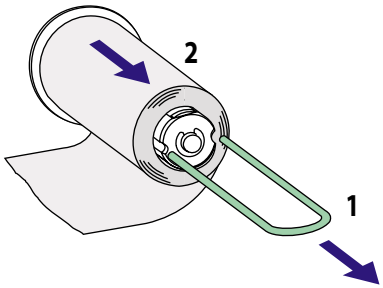
Open the side and front covers.



Turn the printhead lift lever counterclockwise to raise the printhead.

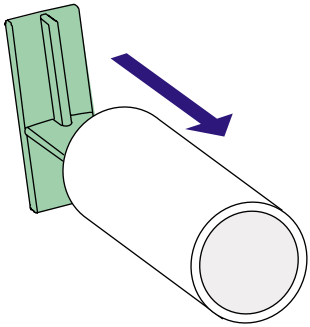
Media Load – Peel-Off, cont.

3



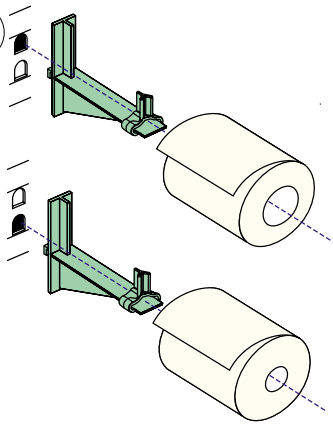
Pull out the clip on the liner takeup hub, then remove any liner.

4



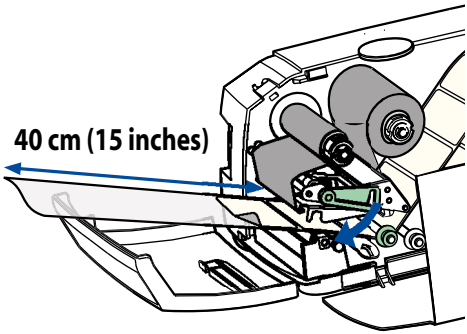
Remove any empty core from the media supply roll post. It is not necessary to remove the edge guide.

5



Check that the media supply roll post is in the correct position for the size of the media roll. The post is easier to move if first rotated 1/4 of a turn. Push the new roll as far in as it will go and adjust the edge guide.

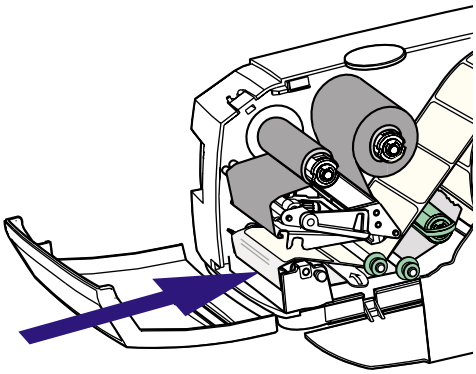
6



Remove labels from the first 40 cm (15 inches) of the liner. Lower the printhead.

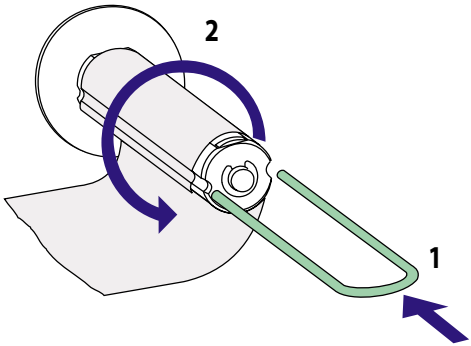
Media Load – Peel-Off, cont.

7



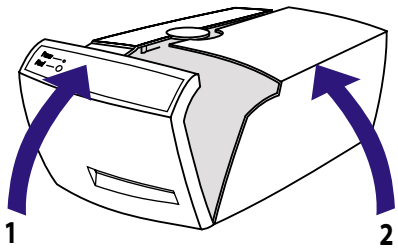
Route the liner around the tear bar and the liner drive roller and back under the print mechanism and the lower (rear) guide shaft.

8



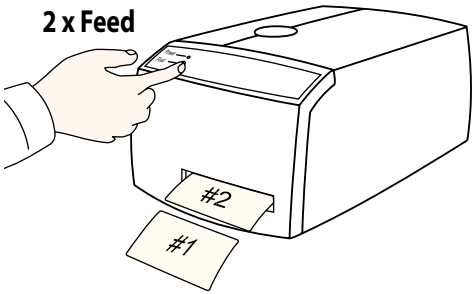
Wind up the liner on the takeup hub and secure it with the clip. Wind up the liner so the media becomes tight

9



Close the covers.

10



*Print out two blank copies by pressing **Feed** twice. If loading media for the first time or when switching to a new type or brand of media, instead print a test label as described at the end of this chapter.*

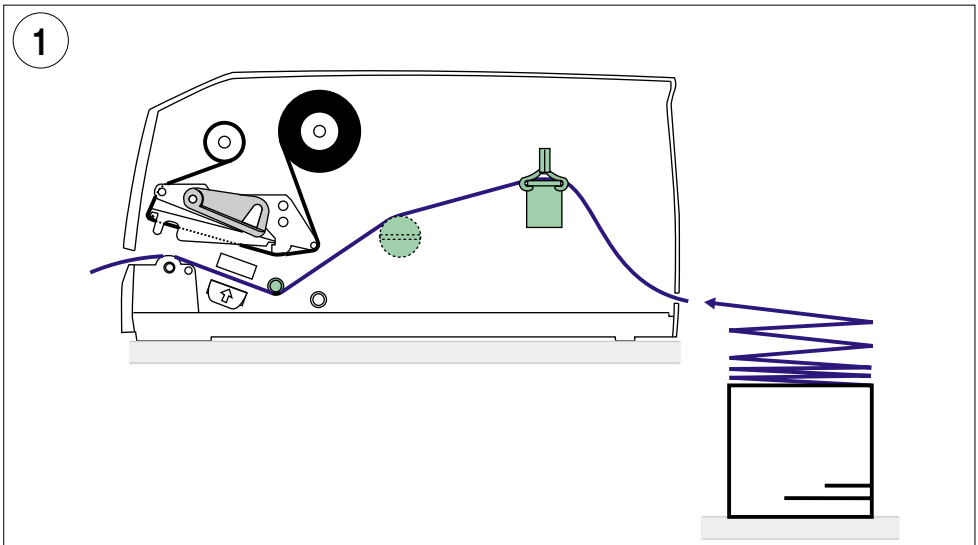
Media Load – External Supply (Fan-fold)

The EasyCoder E4 can print on various types of media placed externally behind the printer, for examples boxes of fan-folded tickets. LinerLess media cannot be placed externally.

For smooth operation, ensure that the external media supply is placed lower than the printer's intake slot.

When using an external media supply, take care to protect the media from dust, dirt or other foreign particles, that can impair the printout quality or cause unnecessary wear to the printhead.

Depending on brand and quality, all direct thermal media are more or less sensitive to heat, direct sunlight, moisture, oil, plasticizers, fat, and other substances. You should protect them accordingly.



This diagram shows the media path from an external supply.

Media Load – Cut-Off (option)

The standard model of EasyCoder E4 can as an option be fitted with a paper cutter that can cut of paper strip or liner between labels. The thickness of the media to be cut should be within 78-175µm (equal to a paper weight between 78 and 175 g/m^2). Minimum practical copy length is 38.1 mm (1.5 inches).

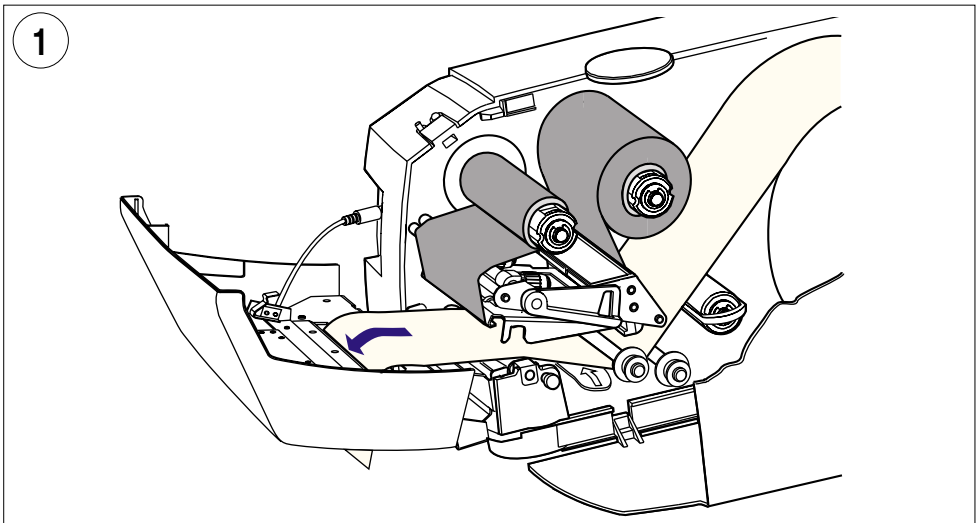
The cutter cannot be used to cut through any adhesive such as labels on liner. It cannot be used with LinerLess media.

The cutter is controlled by **`CUT`** or **`CUT ON`** instructions in the EasyCoder E4 Direct Protocol.

The cutter can be tilted forward to facilitate cleaning and media load. A microswitch prfevents the cutter from running when in open position.

The built-in label taken sensor of the standard EasyCoder E4 does not work when a cutter is installed.

Media load follows the same principles as Tear-Off (Straight-through) operation, see earlier in this chapter, but route the media through the cutter as illustrated below.



Load media according to the instructions for tear-off operation, but route the media through the cutter like this.

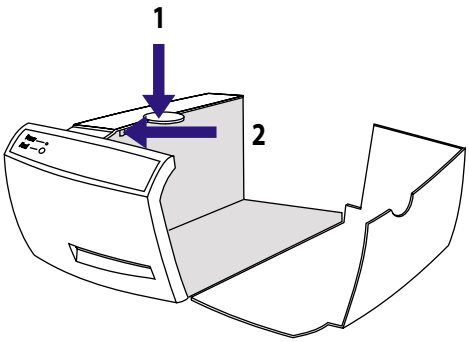
Ribbon Load

The EasyCoder E4 can print on labels, tickets, tags, and continuous stock using either direct thermal printing on special heat-sensitive media or thermal transfer printing using a special ink-coated ribbon. The EasCoder E4 LinerLess printer is not fitted with any transfer ribbon mechanism.

Thermal transfer printing makes it possible to use a wide range of receiving face materials. Make sure to select a type of ribbon that matches the type of receiving face material (see Appendix 2, “Media Specification”) and to set up the printer properly (see Chapter 4, “Printer Setup”).

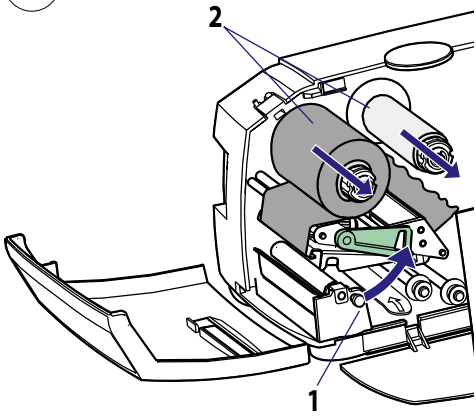
Most transfer ribbons do not smear at room temperature.

1



Open the side and front covers.

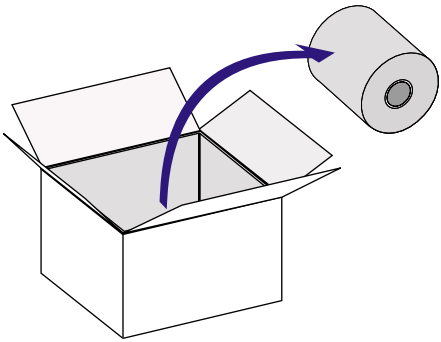
2



Raise the pinthead and remove any used ribbon and the empty ribbon core. Keep the empty core for used with the next ribbon load.

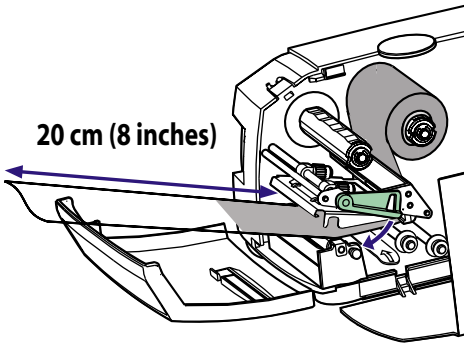
Ribbon Load, cont.

3



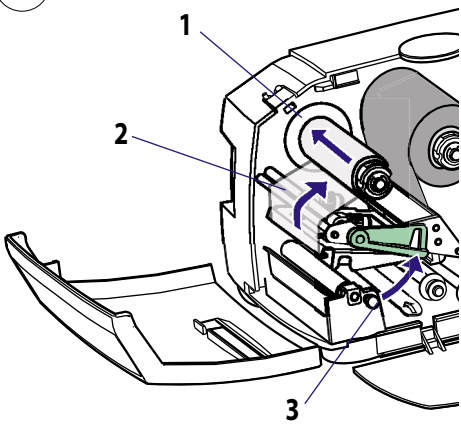
Unpack a roll of original Intermec thermal transfer ribbon.

4



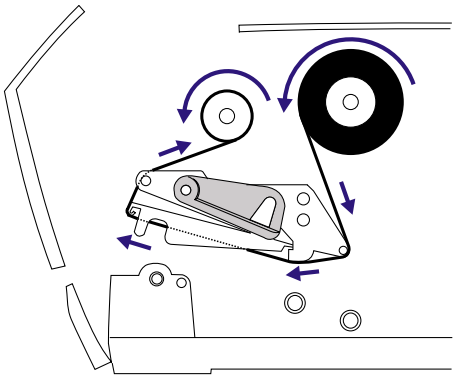
Press the ribbon roll onto the ribbon supply spool and route the ribbon under the printhead with the ink-coated side facing down. Pull out approx. 20 cm (8 inches) of ribbon and lower the printhead.

5



Press an empty core onto the ribbon rewind hub (1.) Tape the transparent ribbon leader to the core (2) and raise the printhead (3.)

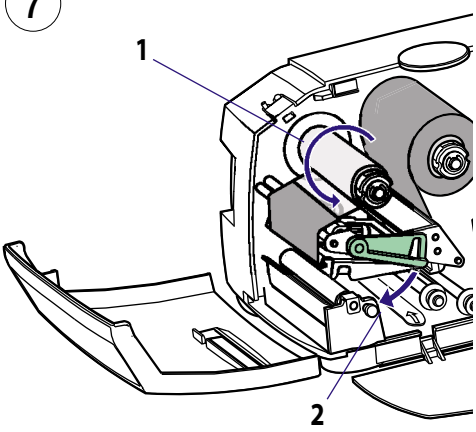
6



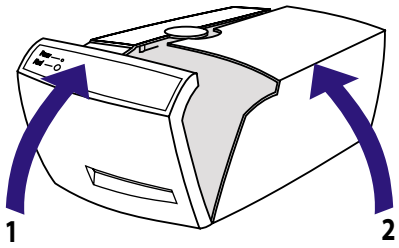
Both ribbon cores must rotate counterclockwize.

Ribbon Load, cont.

7



8



Close the front and side covers.

Printing Test Labels

The EasyCoder E4 prints a test label containing the printer's current setup and other useful information. It also contains a test bar and a crosshatch pattern that allow you to check that the printhead is performing correctly.

Another important function is that the label stop sensor is automatically adjusted for characteristics of the type of media loaded when the test label is printed (testfeed.) Always print a test label when you have changed to another type or brand of media. This is especially important with self-adhesive labels so the sensor can be adjusted for the transparency of the liner

To print the test label:

1 Switch off the printer.
2 Press and hold the **Feed** button while switching the printer on.
3 When the green LED flashes, release the **Feed** button.
4 The printer carries out a **`TESTFEED`** and sets the printhead resistance.
5 After a delay, the test label is printed as illustrated on next page.
6 The printer now enters the Dump Mode, in which all ASCII characters received from the host on any port will printed on labels.
7 To exit the Dump Mode, briefly **tap** the **Feed** button. (If you press the **Feed** button for three seconds or more, the printer will be reset to facory default.)

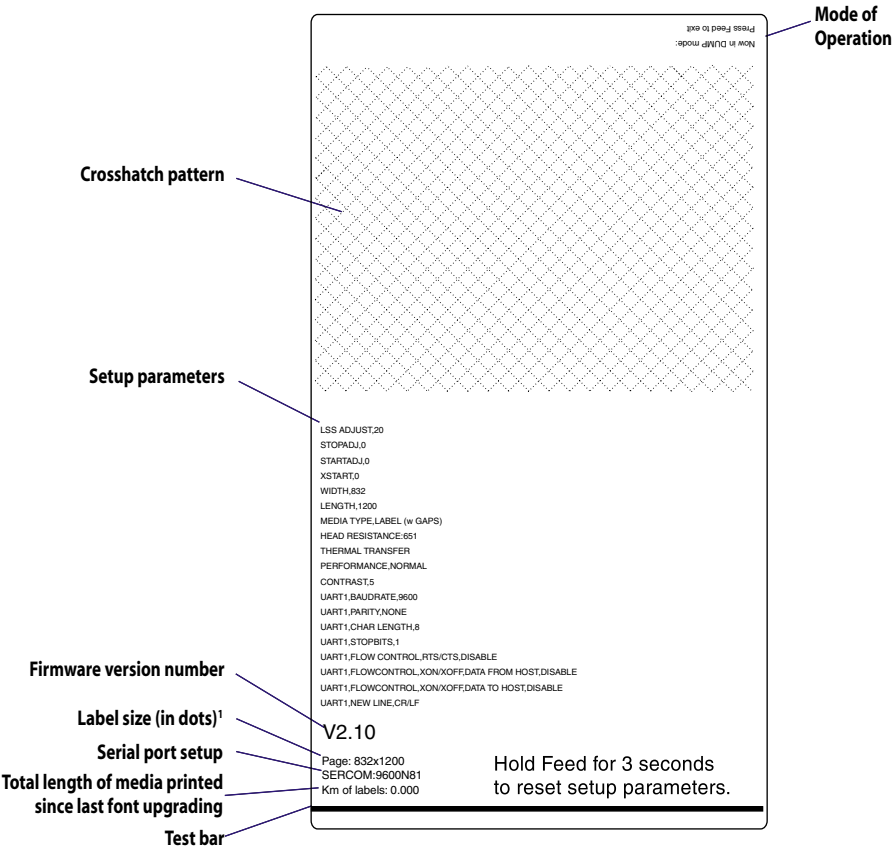
Test labels are designed to be printed on continuous stock. If the printer is loaded with labels, some lines of the test label may be positioned in the gaps between the labels.

Test labels can be printed on either direct thermal or thermal transfer media. If the printer has been loaded with the wrong media (for example when it is set up for direct thermal printing and thermal transfer ribbon is loaded), the LED turns red when you attempt to print a test label. Correct the fault, then press **Feed** to cancel the error status and the test label is printed. If transfer ribbon is not loaded when it is required, the label will be blank.

When you change the printer's setup, the new settings are saved and will remain in operation until you reset or change them, even after the printer has been switched off.

Printing Test Labels, cont.

Example of a test label:



[1]/. The label size given on the test label is the size for which the printer has been set up. Thus, it is not necessarily the actual size of the labels loaded into the printer.

Printing a Label

You can print labels using the Intermec InterDriver, Intermec LabelShop, or the EasyCoder E4 Direct Protocol programming language.

Intermec InterDriver

If you are using the Intermec InterDriver for the EasyCoder E4:

- Design a label in, for example, MS Office or Intermec LabelShop.
- Enter the number of copies required in the InterDriver application.
- Send the label to print.

Intermec LabelShop

If you are using some version of Intermec LabelShop:

- Follow the instructions in the manual for the version of LabelShop installed in your PC.

E4 Direct Protocol

If you are using EasyCoder E4 Direct Protocol, there are two ways to prepare and print a label. These methods allow the EasyCoder E4 also to be used with other operating systems than the various versions of Microsoft Windows.

- Type instructions in the Direct Protocol programming language into a terminal program, which sends them to the printer one instruction at a time. To print a label, send a **`PRINTFEED`** command.
- Type instructions in the Direct Protocol programming language into a text editor and send the resulting text file to the printer using DOS Copy or a terminal program. If you include a **`PRINTFEED`** command in your file, the printer will print the label immediately.

You can tell the printer how many copies you want by adding a number to the **`PRINTFEED`** command, for example **`PRINTFEED22`**.

When you have sent a label to the printer, it will be printed out whenever you send a **`PRINTFEED`** command. If you switch off the printer or send any command starting a new label, the previous label format will be lost.

If you have enabled the **Feed** button to work as a print button using a **`PRINTKEY ON`** command, a new copy of the label presently stored in the image buffer will be printed each time you press the **Feed** button.

See the *EasyCoder E4 Direct Protocol, Programmer's Reference Manual* for further information.

Printer Setup

Setup Methods

There is a number of methods you can use to set up the printer for the desired type of serial communication and control the printing according to type and size of media and in regard of print speed.

The printer is always provided with the EasyCoder E4 Direct Protocol. This chapter mainly explains how to set up the printer using the Direct Protocol.

There is also a number of supporting software packages from Intermec that can send setup data to the printer in a form that the Direct Protocol understands. Thus, you do not have to type intricate commands but only have to click an option or enter some data in menus presented in a Windows-compatible environment.

The following software allows you to set up the printer:

- Intermec PrintSet v2.1 or later
- Intermec InterDriver with or without ActiveX controls
- Intermec LabelShop (various versions)

The number of setup options may vary according to type of software. Please refer to the manual or the on-line help that came with the software in question.

Even if you use a software package to set up the printer, you may find this chapter instructive as it explains what the various options stand for and what choices you have. For a full description, please refer to the *EasyCoder E4 Direct Protocol, Programmer's Reference Manual*.

Communication Setup

The EasyCoder E4 can receive data on both the parallel and serial port, so there is no need to specify which port is to be used:

- Either compose a text file containing the required setup commands and send it to the printer via the parallel port,
- or establish two-way serial communication between printer and host computer as described below.

How to set up two-way serial communication with the EasyCoder E4:

1 Print out a test label to check the printer's RS-232 serial port setting (see Chapter 3, "Operation; Printing Test Labels").
2 Configure the serial port on your host computer to match the printer's settings.
3 Use the **`SYSVAR(18)=n`** command to set what kind of information will be passed back from the printer (called the Verbosity Level), see below
4 Use the **`SETUP`** command to configure the serial port settings.

SYSVAR Verbosity Level settings:

-1	All levels enabled (Default)
0	No verbosity
1	Echo received characters
2	"OK" after correct command lines
4	Echo input characters from communication port
8	Error after failed line

Bits can be combined so for example **`SYSVAR(18)=3`** means both *"Echo received characters"* and *"OK after correct command lines"*.

Once the printer and computer can communicate using the default serial port settings, you can change the settings to whatever communications settings you require, first on the printer and then on the computer.

Once you have established a working serial communication both ways between printer and host, you can use the command to configure the printer as described on the following pages.

Communication Setup, cont.

By default, the serial port is set for 9600 baud, no parity, 8 data bits, 1 stop bit, XON/XOFF disabled both ways. Note that as soon as a parameter is changed, you must change the setup of the host the same way, or the communication will be lost.

- **Baud Rate**
  This setting controls the speed of the serial communication between printer and host (1 baud = 1 data bit per second.) There are 8 options:
  300 600 1200 2400 4800 9600 19200 38400

  Setup string, example:
  `SETUP "SER-COM,UART1,BAUDRATE,9600"` ↵

- **Parity**
  This setting controls how the software will check for errors in the serial communication. There are 5 options:
  None Even Odd Mark Space

  Setup string, example:
  `SETUP "SER-COM,UART1,PARITY,NONE"` ↵

- **Character Length**
  This setting controls how many bits are used to specify a character in the serial communication. There are two options:
  7 Characters ASCII 0-127 dec. can be transmitted
  8 Characters ASCII 0-256 dec. can be transmitted

  Setup string, example:
  `SETUP "SER-COM,UART1,CHAR␣LENGTH,7"` ↵

- **Stop Bits**
  This setting controls how many bits are used to specify a stop character in the serial communication. There are two options:
  1 or **2**

  Setup string, example:
  `SETUP "SER-COM,UART1,STOPBITS,1"` ↵

In the setup string examples, a double-headed arrow (as in "CHAR␣LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Communication Setup, cont.

- **Data Flow Control**
  Data flow control determines serial communication between printer and host. It prevents characters being lost when data is transferred between printer and host at high speeds over the RS-232 serial port. It is important that the printer and host have the same configuration.

  There are three recommended settings for controlling data flow between printer and host.

  - **No flow control**
    RTS/CTS is disabled
    XON/XOFF, Data from Host is disabled.
    XON/XOFF, Data to Host is disabled

  Note:
  It is not recommended that you enable XON/XOFF, Data to Host.

  - **RTS/CTS**
    This protocol controls communication by handshake signals through separate wires in the cable.
    RTS/CTS is enabled
    XON/XOFF, Data from Host is disabled.
    XON/XOFF, Data to Host is disabled

  - **XON/XOFF, Data from Host**
    This protocol controls communication using the special characters XON (ASCII 17 dec.) and XOFF (ASCII 19 dec.) which are transmitted on the same wires as the data.
    RTS/CTS is disabled
    XON/XOFF, Data from Host is enabled
    XON/XOFF, Data to Host is disabled

  Setup strings, examples:

  ```
  SETUP "SER-COM,UART1,FLOWCONTROL,RTS/CTS,DISABLE" ↵
  SETUP "SER-COM,UART1,FLOWCONTROL,XON/XOFF,DATA␣TO␣HOST,DISABLE" ↵
  SETUP "SER-COM,UART1,FLOWCONTROL,XON/OFF,DATA␣FROM␣HOST,ENABLE" ↵
  ```

- **New Line Character**
  This setting specifies the character(s) transmitted from printer to host to initiate switching to a new line:
  - CR (ASCII 13 dec.)
  - LF (ASCII 10 dec.)
  - CR/LF (ASCII 13 + ASCII 10 dec.)

In the setup string examples, a double-headed arrow (as in "CHAR␣LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Print Location Setup

Recommended Adjustments:

Peel-Off (Label w gaps):
Start Adjust : *-119*
Stop Adjust: *-33*

Tear-Off (Ticket w mark):
Start Adjust: *-152*
Stop Adjust: *0*

Tear-Off (Label w gap):
Start Adjust: *-152*
Stop Adjust: *0*

Tear-Off (Var. Length Strip):
Start Adjust: *-136*
Stop Adjust: *+75*

Tear-Off (Fix Length Strip):
Start Adjust: *-136*
Stop Adjust: *+150*

Cut-Off (Strip):
Start Adjust: *-250*
Stop Adjust: *+180*

Cut-Off (between labels):
Start Adjust: *-250*
Stop Adjust: *+100*

- **Media Feed Adjustments**
  There are two settings that control the amount of blank media to be fed before the actual printing starts and after it is completed:
  - ***Start Adjustment***
    This setting feeds out or pulls back a specified length of media before the printing of a label, ticket, or portion of continuous stock starts. The value is entered as dots, where a positive value (no leading minus sign) feeds out the media and a negative value (leading minus sign) pulls it back.
  - ***Stop Adjustment***
    This setting works the same way as the Start Adjustment, but is executed after the printing of a label etc. is completed.

Using these two settings, you can, for example, control the media feed so the printing starts at the top of the label and the media still can be torn off in the gap between two labels.

Setup strings, examples:

```
SETUP "DETECTION,FEEDADJ,STARTADJ,-136" ↵
SETUP "DETECTION,FEEDADJ,STOPADJ,75" ↵
```

In the setup string examples, a double-headed arrow (as in "CHAR↔LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Print Location Setup, cont.

- **Print Window**
  The area on the media which can be used for printing (print window), is specified by means of three parameters, which are all given as a positive number of dots. It is important to set the print window so no printing can occur outside the media or ribbon, which may shorten the life of the printhead due to overheating.

  - ***X-Start***
    Specifies an offset from the innermost dot on the printhead. When the X-Start value is set to 0, the print area starts 1 mm (0.04 inches) from the edge of the media, that is closest to the printer's center section. By increasing the X-Start value, you can move the origin (X=0) outwards, making the inner margin wider.
  - ***Width***
    Specifies the width of the print area, starting from the position of the origin as defined by the X-Start value. The sum of the X-Start and Width values must not exceed the width of the printhead (832 dots.)
  - ***Length***
    Specifies the length of the printable area from the origin and along the Y-axis. This value decides the maximum amount of media feed when using any media type except "Var. length strip" (see Media Type below.) In case of labels, tickets, tags, or fixed portions of strip, enter the exact length.

  Setup strings, examples:

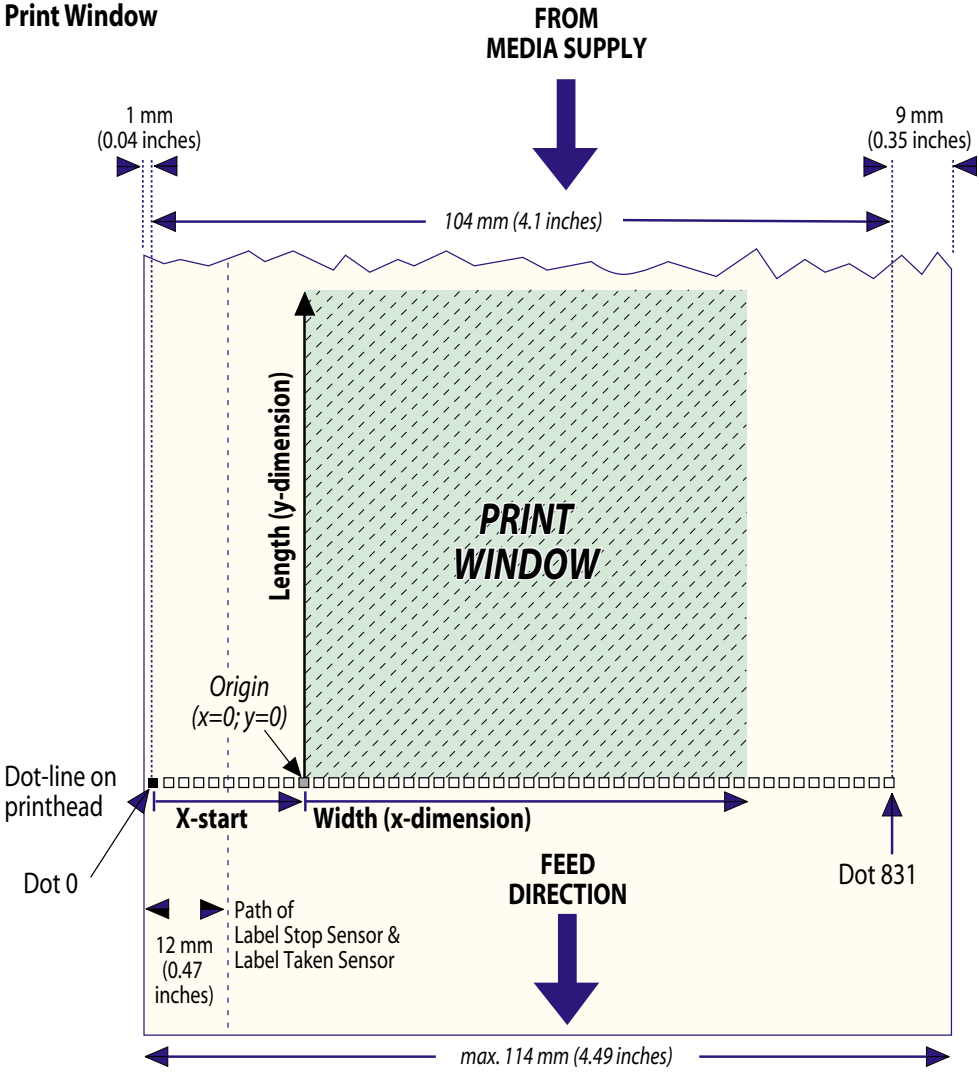
```
SETUP "SERVICE,MEDIA↔SIZE,XSTART,30" ↵
SETUP "SERVICE,MEDIA↔SIZE,WIDTH,600" ↵
SETUP "SERVICE,MEDIA↔SIZE,LENGTH,800" ↵
```

In the setup string examples, a double-headed arrow (as in "CHAR↔LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Print Location Setup, cont.

Print Window



Media Setup

- **Media Type**
  The EasyCoder E4 can be set to handle five different types of direct thermal media or receiving face material:
  - Label with gaps
  - Ticket with marks
  - Ticket with gaps
  - Fixed length strip
  - Variable length strip

  Refer to Appendix 2 for illustrations and specifications of the various types. It is important to specify the correct type, so the media feed will work correctly and the label stop sensor can detect the front edges of labels, tickets, and tags as well as out-of-paper conditions.

  Setup strings, examples:

  ```
  SETUP "SERVICE,MEDIA␣TYPE,LABEL␣(w␣GAPS)" ↵
  SETUP "SERVICE,MEDIA␣TYPE,TICKET␣(w␣MARK)" ↵
  SETUP "SERVICE,MEDIA␣TYPE,TICKET␣(w␣GAPS)" ↵
  SETUP "SERVICE,MEDIA␣TYPE,FIX␣LENGTH␣STRIP" ↵
  SETUP "SERVICE,MEDIA␣TYPE,VAR␣LENGTH␣STRIP" ↵
  ```

- **Paper Type**
  In order to be compatible with previous Intermec printers, the EasyCoder E4 is preset to use a number of standard media and ribbon qualities. Select the appropriate "Paper Type" setting among those listed in Appendix 2.

  More preferred ways of setting up the printer for different ribbons and receiving face materials are described in "New Supplies" below and in Appendix 5, "Printer Setup with the Bar Code Wand."

  Setup string, example:

  ```
  SETUP "SERVICE,PRINT␣DEFS,PAPER␣TYPE,UBI␣HP␣07" ↵
  ```

- **New Supplies**
  When using direct thermal media and transfer ribbons, you can send a text string to the printer to indicate the supply type. See Appendix 2 for recommended "New Supplies" settings. This method of setting up the printer is preferred to obtain the best print quality and printhead lifetime.

In the setup string examples, a double-headed arrow (as in "CHAR␣LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Media Setup, cont.

Always use ribbons and labels from Intermec. These have been carefully matched with the printhead. Other ribbons and labels may shorten the life of the printhead.

Setup string, examples:

Direct thermal printing (Economy grade)

```
SETUP "SERVICE,PRINT␣DEFS,NEW␣SUPPLIES,GQ90" ↵
```

When setting the printer for thermal transfer printing, two "New Supplies" setup strings have to be used; one for the transfer ribbon and another for the receiving face material, for example:

HP07 ribbon:

```
SETUP "SERVICE,PRINT␣DEFS,NEW␣SUPPLIES,GF100" ↵
```

Matt coated face stock:

```
SETUP "SERVICE,PRINT␣DEFS,NEW␣SUPPLIES,GZ0" ↵
```

Print Setup

- **Performance**

  This setting controls the print speed:

  - Normal *Nominal speed 100 mm/sec. (4 inches/sec.)*
  - High *Nominal speed 150 mm/sec. (6 inches/sec.)*

  Normal print speed gives the best printout quality for demanding layouts, containing for example ladder style bar codes or fine-detailed images. However, high speed gives an acceptable quality for most applications.

  Setup strings, examples:

  ```
  SETUP "SERVICE,PERFORMANCE,NORMAL" ↵
  SETUP "SERVICE,PERFORMANCE,HIGH" ↵
  ```

- **Contrast**

  This setting controls the darkness of the printing on the paper. The range is 0-10, where 0 is the lightest and 10 is the darkest. To obtain the best printout quality, the contrast should be set to 5 (default) when using "New Supplies" setup stringsfor setting up the printer in regard of ribbon and labels.

  Setup string, example:

  ```
  SETUP "CONTRAST,5" ↵
  ```

In the setup string examples, a double-headed arrow (as in "CHAR␣LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Testfeed

The label length is defined as the distance between gaps, detection slots, or black marks. Measure the actual distance from the rear end of a gap or slot to the start of next gap or slot. In case of black marks, measure the distance between the forward edges of two adjacent marks and subtract the value expressed in dots by 16.

By using a **TESTFEED** command, a blank label is fed out while the label length is automatically measured and stored in the printer's flash memory, and the sensitivity of the label stop sensor is adjusted according to the characteristics of the presently loaded media.

It is recommended to send a TESTFEED command every time you change to a new label/ticket length or media type!

When using labels/tickets with a length exceeding 24 cm (9.5 inches), the **TESTFEED** command does not work, so the label length must be set manually using both of the two following setup commands.

```
SETUP "SERVICE,TESTFEED,LENGTH,<length in dots>" ↵
SETUP "SERVICE,MEDIA␣SIZE,LENGTH,<length in dots>" ↵
```

The default value is 1200 dots (150 mm/5.9 inches)

In the setup string examples, a double-headed arrow (as in "CHAR␣LENGTH") indicates a mandatory space characters in the command line.

Quotation marks (" ") are ASCII 34 dec.

Troubleshooting

Checklist

The list below is intended to help you to correct possible printout troubles or flaws in printout quality, and to decide when assistance from the Service dept. of the nearest Intermec distributor is required. Note that most problems are due to operating errors or normal wear of the printhead.

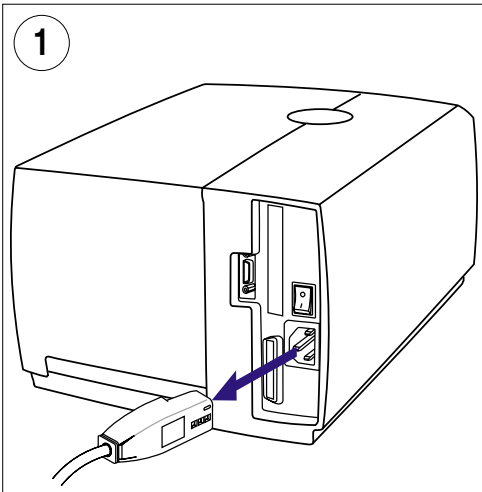
Symptom	Possible Cause	Remedy	Refer to
Overall weak printout	Wrong Paper Type parameter Low Contrast parameter value Printhead pressure too low Worn printhead Wrong printhead voltage	Change parameter Change parameter Adjust printhead pressure Replace printhead Replace CPU board	Chapter 4 Chapter 4 Chapter 6 Chapter 6 ☎ Call Service
Printout weaker on one side	Uneven printhead pressure	Adjust pressure	Chapter 6
Weak spots	Foreign particles on media/ribbon Media/ribbon don't match Poor media or ribbon quality Worn printhead Worn platen roller	Clean media/ribbon Change media or ribbon Change media or ribbon Replace printhead Check/replace	n.a. Chapter 3 Chapter 3 Chapter 6 ☎ Call Service
Overall dark printout	Wrong Paper Type parameter Too high Contrast parameter value Printhead pressure too high Wrong printhead voltage	Change parameter Change parameter Adjust both knobs Replace CPU board	Chapter 4 Chapter 4 Chapter 6 ☎ Call Service
Excessive bleeding	Wrong Paper Type parameter Contrast parameter value too high Printhead pressure too high Faulty energy control	Change parameter Change parameter Adjust both knobs Replace CPU board	Chapter 4 Chapter 4 Chapter 6 ☎ Call Service
Transfer ribbon breaks	Wrong Paper Type parameter Ribbon supply unit stuck Bad energy control	Change parameter Adjust Check CPU board	Chapters 4 ☎ Call Service ☎ Call Service
White areas in transfer printing	Transfer ribbon wrinkled	Adjust	See below
Transfer ribbon wrinkles	Incorrect edge guide adjustment Too strong printhead pressure	Adjust Adjust both knobs	Chapter 3 Chapter 6
Dark lines along feed direction	Foreign objects on printhead	Clean printhead	Chapter 6
White lines along feed direction	Printhead dirty Missing dots on printhead	Clean printhead Replace printhead	Chapter 6 Chapter 6
Large part of dot line missing	Wrong X-start or Width parameter Failing printhead Failing strobe signal	Change parameter Replace printhead Check CPU-board	Chapter 4 Chapter 6 ☎ Call Service
Printout missing along inner edge	Bad media alignment X-start parameter value too low	Adjust Increase	Chapter 3 Chapter 4

Maintenance

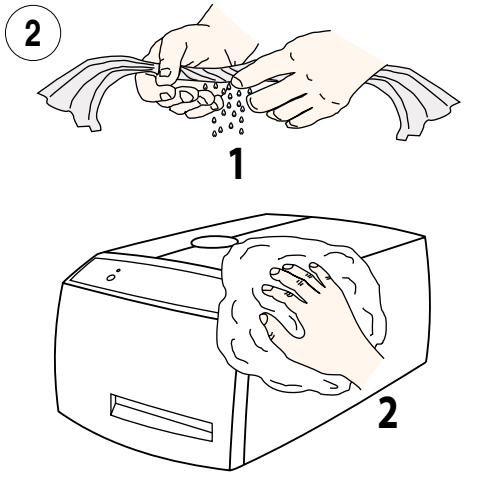
Cleaning the Case

When you clean the case of the printer, use a soft cloth dampened with water. If necessary, use a mild detergent.

> ***Caution!***
> *Do not use abrasive cleaners or solvents as they may damage the surface of the printer.*



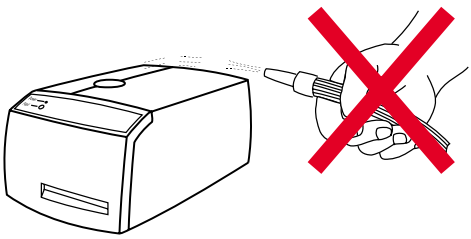
Always disconnect the power cord before cleaning.



Wipe external surfaces with a soft damp cloth and, if necessary, a mild detergent.

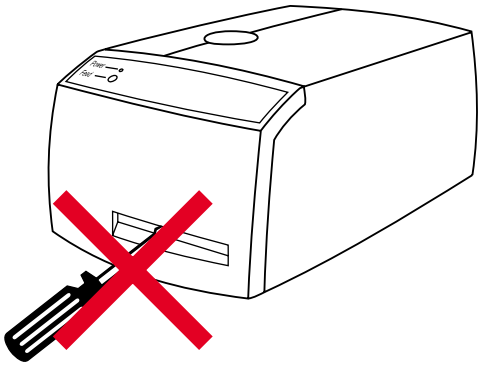
Cleaning the Case, cont.

3



Protect the printer from liquids at all times.

4



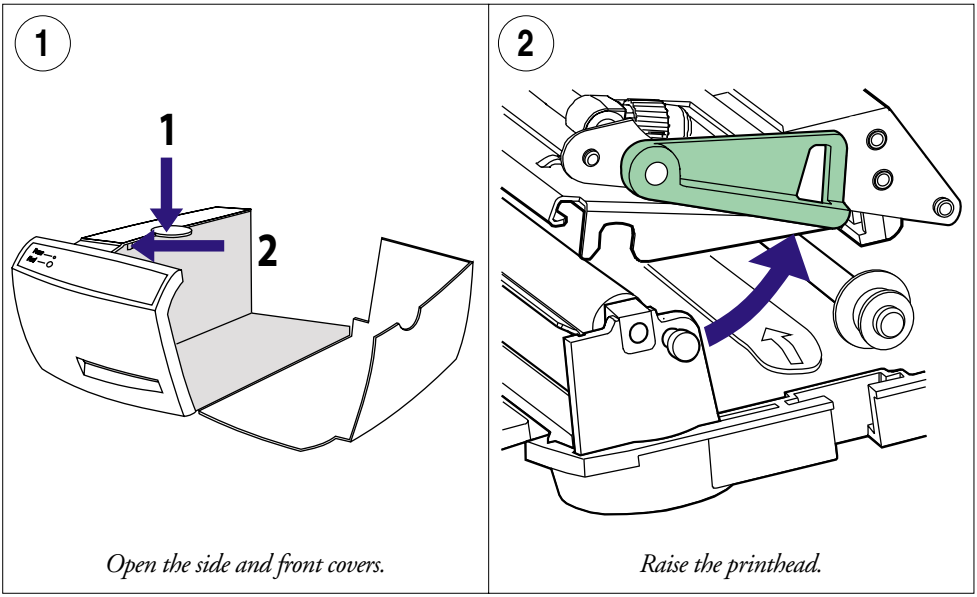
Do not use any sharp tools to remove stuck labels. The printhead and platen roller are easily damaged.

Cleaning the Printhead

It is important to clean the printhead regularly, preferably each time you load a new roll of media.

Use the special cleaning card to clean the printhead. Always dispose of the used cleaning card properly.

Warning!
Isopropyl alcohol [$(CH_3)_2CHOH$; CAS 67-63-0] is a highly flammable, moderately toxic, and mildly irritating substance.

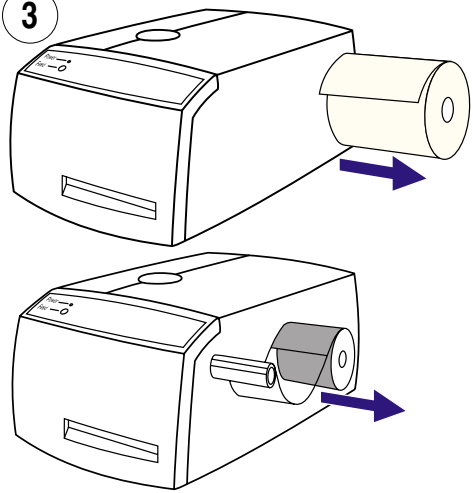


Open the side and front covers.

Raise the printhead.

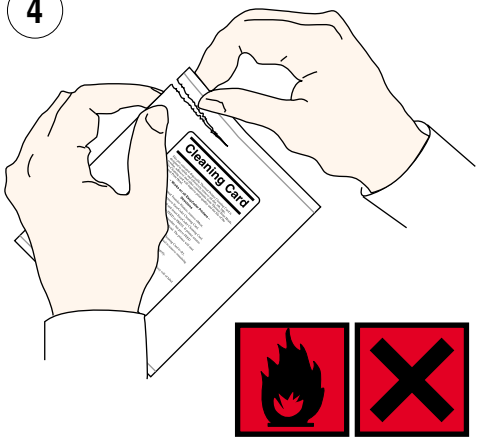
Cleaning the Printhead, cont.

3



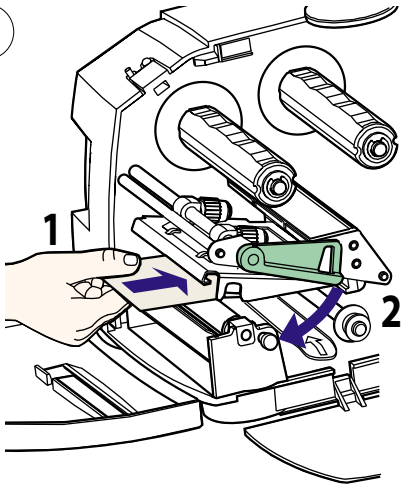
Remove the media and any transfer ribbon.

4



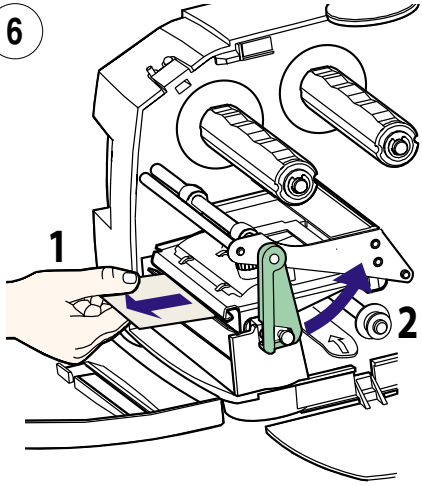
Open the cleaning card. The cleaning card contains isopropyl alcohol, see "Warning!" notice on the previous page.

5



Insert most of the cleaning card under the printhead (1), then lower the printhead (2.)

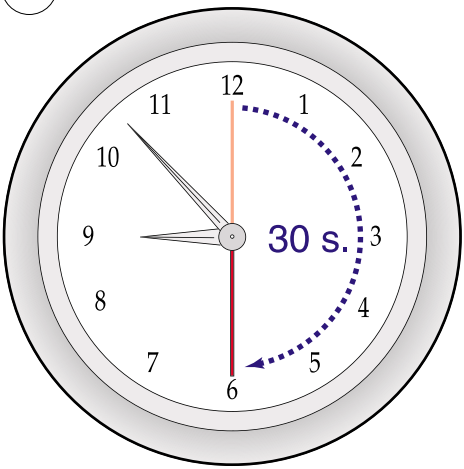
6



Pull the cleaning card out (1) and raise the printhead (2.)

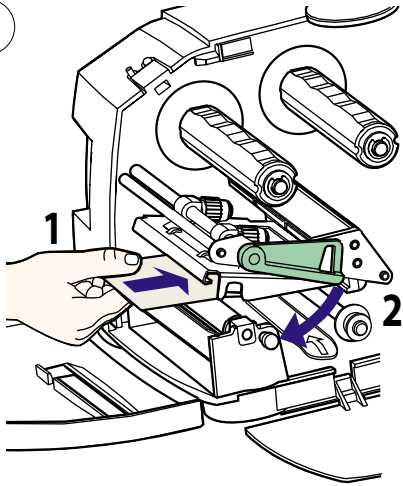
Cleaning the Printhead, cont.

7



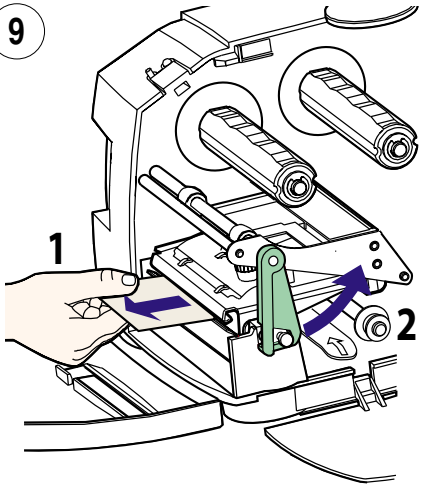
Wait 30 seconds.

8



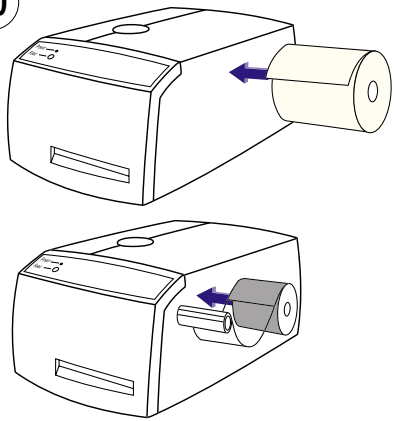
Insert most of the cleaning card under the printhead (1), then lower the printhead (2.)

9



Pull the cleaning card out (1) and raise the printhead (2.)

10



Allow the cleaned printhead to dry for a couple of minutes before reloading media and possible transfer ribbon.

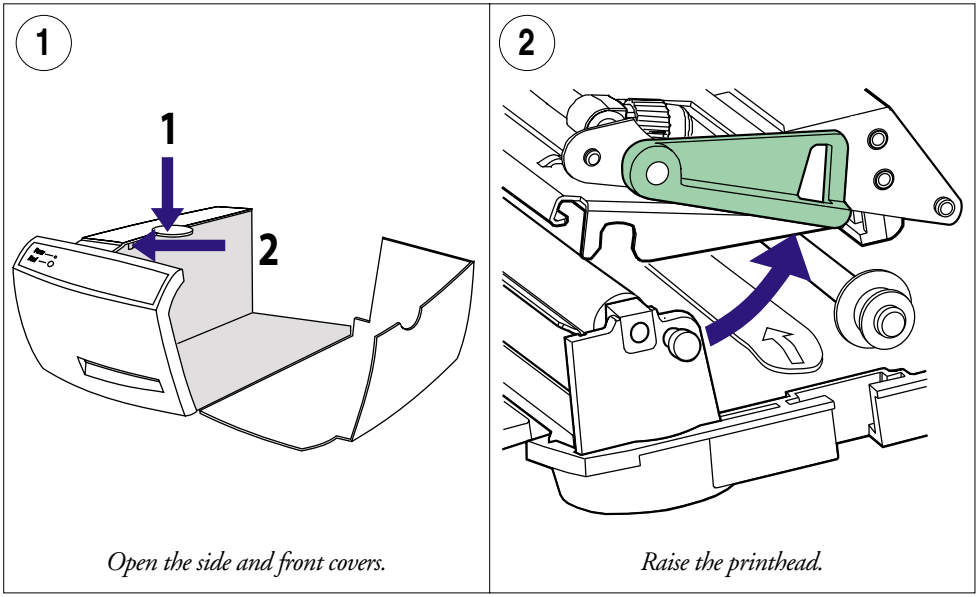
Cleaning the Platen Roller

When you clean the printhead with a cleaning card, the platen roller is cleaned at the same time. However, if the platen roller becomes heavily contaminated, it may be necessary to clean it separately.

Clean the platen roller with a soft cloth moistened with isopropyl alcohol.

Clean the tear bar and the ribbon guides at the same time as the platen roller.

Warning!
Isopropyl alcohol [$(CH_3)_2CHOH$; CAS 67-63-0] is a highly flammable, moderately toxic, and mildly irritating substance.

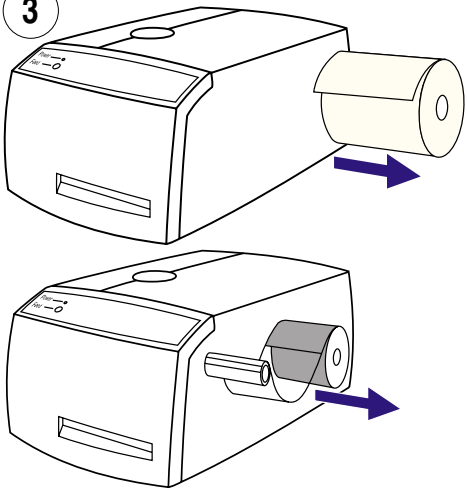


Open the side and front covers.

Raise the printhead.

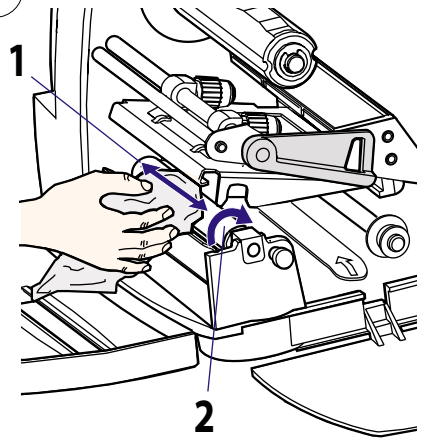
Cleaning the Platen Roller, cont.

3



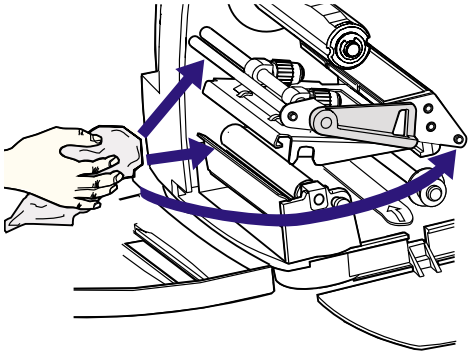
Remove the media and any transfer ribbon.

4



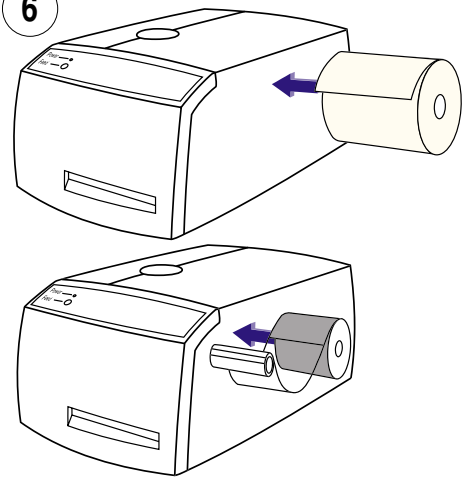
Clean the exposed face of the platen roller while rotating it manually.

5



Clean the tear bar and the ribbon guides (if any).

6



Reload the media and possible transfer ribbon.

Replacing the Printhead

When the printhead becomes worn or damaged, it can easily be changed. The series of pictures below describes how to fit a replacement printhead.

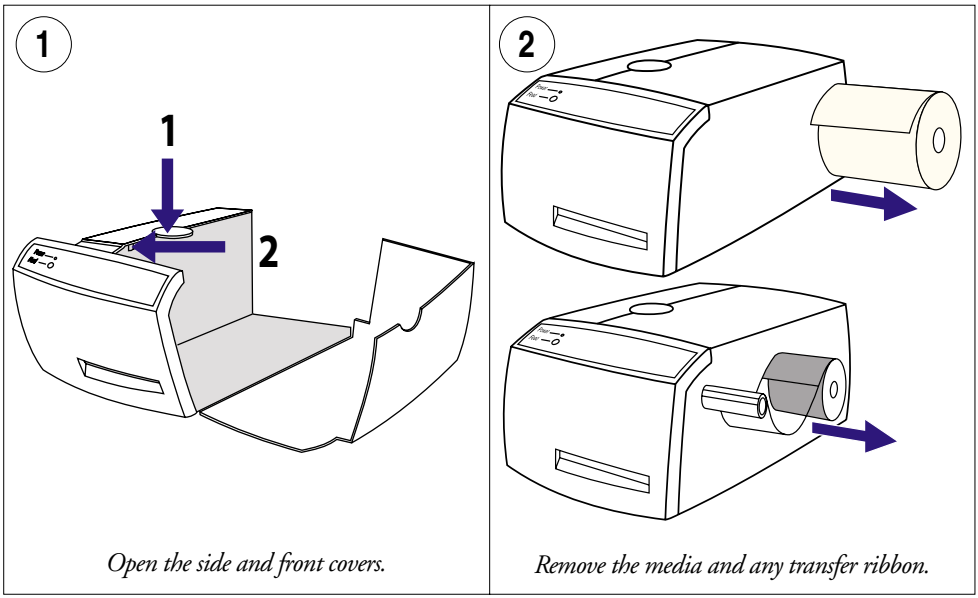
IMPORTANT!

After completing the physical installation, it is important that the printer is instructed to measure the resistance of the new printhead and adjust itself accordingly. This can be done by sending the following instruction:

```
PRINT HEAD(-1)
```

Another method is to start up the printer in the Test Mode, see "Printing Test Labels" at the end of Chapter 3, "Operation."

Failure to adjust the printer to the printhead resistance may result in inferior printout quality or premature wear-out of the printhead.

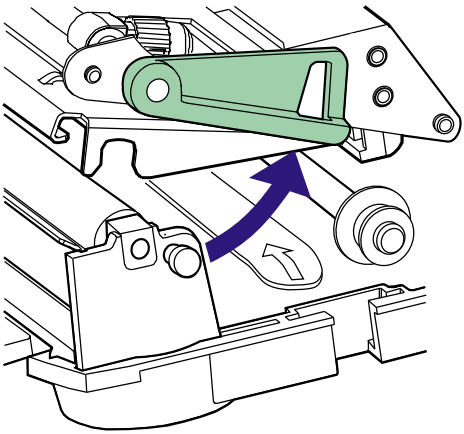


Open the side and front covers.

Remove the media and any transfer ribbon.

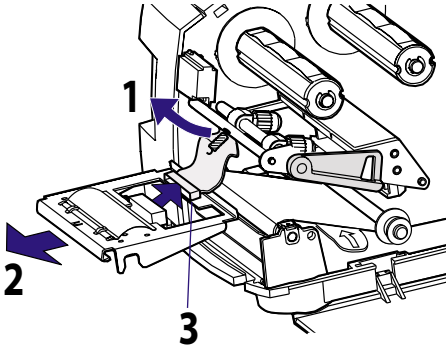
Replacing the Printhead, cont.

3



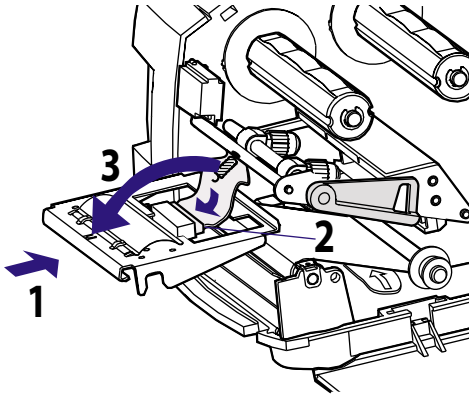
Raise the printhead.

4



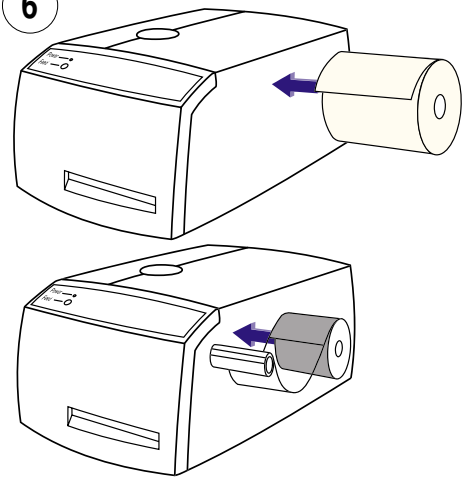
Unhook the spring (1), pull the printhead forward (2), and disconnect the cable (3.)

5



Slide in the new printhead (1), connect the printhead cable (2), and hook the spring into position (3.)

6



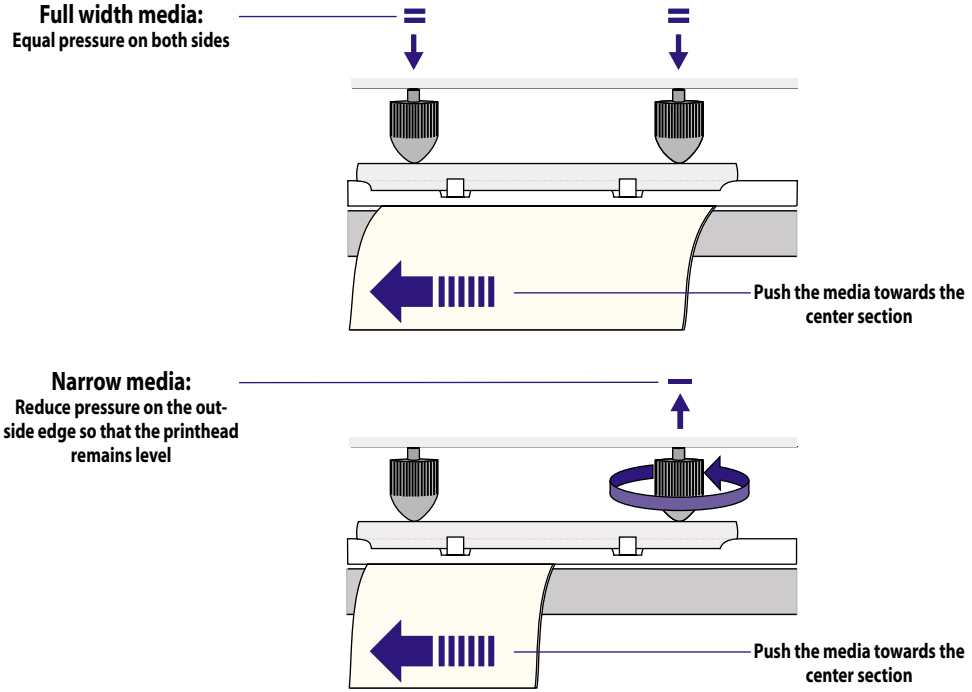
Reload the media and possible transfer ribbon.

Adjusting Printhead Pressure

When you print, the thermal printhead must be pressed against the platen roller so that heat can be transferred from the printhead to the transfer ribbon or media. The pressure should also provide sufficient friction to drive the media past the printhead. Too little pressure gives a weak printout quality, while too much pressure can cause ribbon wrinkling and unnecessary printhead wear.

The printer's factory-set for full width, thermal transfer printing or LinerLess print, depending on model. If you change the media to thicker, thinner, or narrower, it may be necessary to adjust the printhead pressure, using trial and error.

Do not use any more pressure than is necessary to obtain the desired print quality.



Technical Data (Standard model)

Print Technique	Direct Thermal/Thermal Transfer	
Print Resolution	8 dots/mm (203.2 dots/inch)	
Quick-mount Printhead	Yes	
Maximum Print Width	104 mm (4.09 inches)	
Maximum Media Width	114 mm (4.5 inches)	
Smooth Fonts	Yes	
Print Directions	4	
Maximum Internal Media Roll Diameter	152 mm (6 inches)	
Maximum Ribbon Length	~200 metres (656 feet)	
Dimensions (W x D x H)	236 x 350 x 170 mm (9.3 x 13.78 x 6.7 inches)	
Weight (excluding media, ribbon, & options)	4.7 kgs (10.3 pounds)	
Ambient Operating Temperature	+5°C to +40°C (+41°F to +104°F)	
Humidity	20 to 80% non-condensing	
Sound Emission Level	< 60 dB (A)	
Microprocessor	32 bit	
Firmware	Intermec EasyCoder E4 Direct Protocol v2.10	
Label and Ribbon End Sensors	Yes	
AC Input Voltage	110 to 120/220 to 240 VAC, 4/2A, 60/50Hz	Build option
PFC Regulation	IEC 61000-3-2	
Maximum Power Consumption	Stand-by 30W; Typical label 70W; Maximum 250W	
Communications Interface Standard	1 x RS-232 Serial and 1 x Centronics Parallel	
Print Speed (tear-off/cut-off)	100 or 150 mm/sec (4 or 6 inches/sec)	
Print Speed (peel-off/roll Ø 152 mm)	100 mm/sec. (4 inches/sec)	Rec.
Print Speed (LTS enabled)	100 mm/sec. (4 inches/sec)	
Bar Code Generators	38	
On-board Flash EPROMs	2 x 512K	
On-Board RAM Memory	512K	
RS-232 Cable	Optional	
Centronics Parallel Cable	Standard	
Real Time Clock (RTC)	Optional	
Label Taken Sensor	Fitted	
Scaleable Fonts	Built-in	
Memory Card Slot	1 PCMCIA 5V Type 3, or 2 PCMCIA 5V Type 1 or 2	
Paper Cutter	Optional	

Technical Data (LinerLess model)

Print Technique	Direct Thermal and LinerLess	
Print Resolution	8 dots/mm (203.2 dots/inch)	
Quick-mount Printhead	Yes	
Maximum Print Width	104 mm (4.09 inches)	
Maximum Media Width	114 mm (4.5 inches)	
Smooth Fonts	Yes	
Print Directions	4	
Maximum Internal Media Roll Diameter	152 mm (6 inches)	
Dimensions (W x D x H)	236 x 350 x 170 mm (9.3 x 13.78 x 6.7 inches)	
Weight (excluding media & options)	4.3 kgs (9.4 pounds)	
Ambient Operating Temperature	+5°C to +40°C (+41°F to +104°F)	
Humidity	20 to 80% non-condensing	
Sound Emission Level	< 60 dB (A)	
Microprocessor	32 bit	
Firmware	Intermec EasyCoder E4 Direct Protocol v2.10	
Label End Sensor	Yes	
AC Input Voltage	110 to 120/220 to 240 VAC, 4/2A, 60/50Hz	Build option
PFC Regulation	IEC 61000-3-2	
Maximum Power Consumption	Stand-by 30W; Typical label 70W; Maximum 250W	
Communications Interface Standard	1 x RS-232 Serial and 1 x Centronics Parallel	
Print Speed	100 or 150 mm/sec (4 or 6 inches/sec)	
Bar Code Generators	38	
On-board Flash EPROMs	2 x 512K	
On-Board RAM Memory	512K	
RS-232 Cable	Optional	
Centronics Parallel Cable	Standard	
Real Time Clock (RTC)	Optional	
Label Taken Sensor	Not fitted	
Scaleable Fonts	Built-in	
Memory Card Slot	1 PCMCIA 5V Type 3, or 2 PCMCIA 5V Type 1 or 2	

Media Specifications

Media Roll Size

The following restrictions apply to media rolls fitted inside the printer. Only the width and web thickness restrictions apply to external media supplies.

Core

Diameters:	38 mm	(1.5 inches)	*bottom position*
	76.2 mm	(3 inches)	*top position*
Width:	Must not protrude outside the media.		

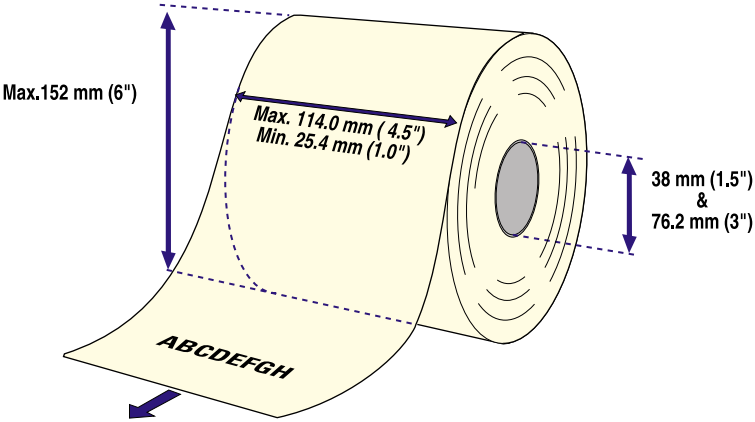
The media must not be attached to the core in such a way that the printer cannot pull the end free. Otherwise the thermal transfer ribbon may be damaged.

Roll

Max. diameter:	152 mm	(6 inches)
Max. width:	114 mm	(4.5 inches)
Min. width:	25.4 mm	(1 inches)
Max. web thickness:	175µm	(0.007 inches)

The maximum recommended media thickness is 175µm. Thicker media may be used, but print quality will be reduced. Media stiffness is also important and must be balanced against thickness to maintain print quality.

Media rolls fitted inside the printer should be wound with the printable side facing outwards.



An external media supply must be protected from dust, sand, grit, etc. Any hard particles, even small ones, can damage the printhead.

Media

Non-Adhesive Strip

⇐ **a** ⇒ **Media Width**:

Maximum:	114.0 mm	(4.5 inches)
Minimum:	25.4 mm	(1.00 inches)

Media type setup:

- Fix length strip
- Var length strip

Media, cont.

Self-Adhesive Strip

⇐ **a** ⇒ **Media Width** (including liner):

Maximum:	114.0 mm	(4.5 inches)
Minimum:	25.4 mm	(1.00 inches)

⇐ **b** ⇒ **Liner**

The liner must not extend more than a total of 1.6 mm (0.06 inches) outside the face material and should protrude equally on both sides.

⇐ **c** ⇒ **Media Width** (excluding liner):

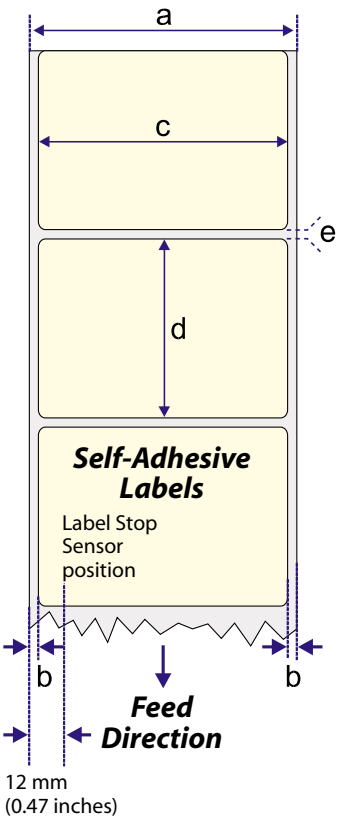
Maximum:	112.4 mm	(4.44 inches)
Minimum:	23.8 mm	(0.94 inches)

Media Type Setup:

- Fix length strip
- Var length strip

Media, cont.

Self-Adhesive Labels



⇐ **a** ⇒ **Media Width** (including liner):

Maximum:	114.0 mm	(4.5 inches)
Minimum	25.4 mm	(1.00 inches)

⇐ **b** ⇒ **Liner**

The liner must not extend more than a total of 1.6 mm (0.06 inches) outside the labels and should protrude equally on both side. Recommended min. transparency: 40% (DIN 53147).

⇐ **c** ⇒ **Label Width** (excluding liner):

Maximum:	112.4 mm	(4.44 inches)
Minimum:	23.8 mm	(0.94 inches)

⇐ **d** ⇒ **Label Length:**

Minimum:	10.0 mm	(0.39 inches)

⇐ **e** ⇒ **Label Gap:**

Maximum:	10.0 mm	(0.39 inches)
Recommended:	1.6 mm	(0.06 inches)
Minimum:	1.2 mm	(0.05 inches)

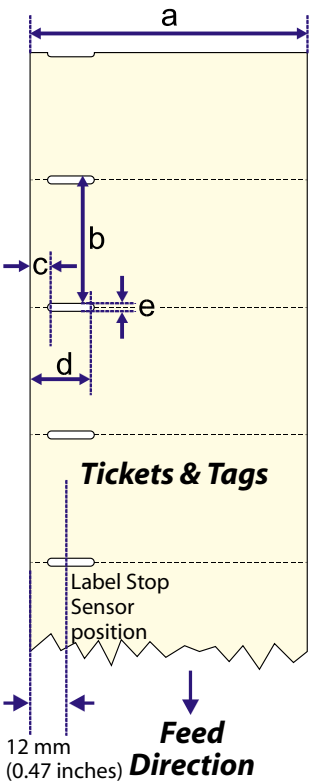
The Label Stop Sensor must be able to detect the extreme front and rear edges of the label. It is positioned 12 mm (0.47 inches) from the inner edge of the media, so do not use labels with a larger inner corner radius.

Media Type Setup:

• Label (w gaps)

Media, cont.

Tickets with Gap



⇐ a ⇒ Media Width:

Maximum:	114.0 mm	(4.5 inches)
Minimum (standard):	25.4 mm	(1.00 inches)

⇐ b ⇒ Copy Length:

Min. length between slots:	10.0 mm	(0.39 inches)

⇐ c ⇒ Detection Slit Start:
The distance between the inner edge of the media and the start of the detection gap (excl. corner radii) must be:

Minimum:	6 mm	(0.24 inches)
Maximum:	9 mm	(0.35 inches)

⇐ c ⇒ Detection Slit End:
The distance between the inner edge of the media and the end of the detection gap (excl. corner radii) must be:

Minimum:	15 mm	(0.59 inches)

⇐ e ⇒ Detection Slit Height:

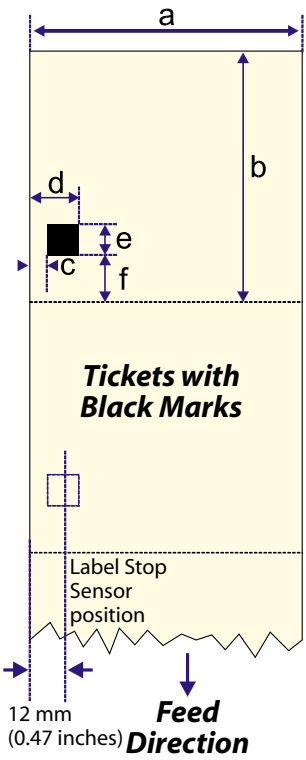
Maximum:	10.0 mm	(0.39 inches)
Recommended:	1.6 mm	(0.06 inches)
Minimum:	1.2 mm	(0.05 inches)

Media Type Setup:
• Ticket (w gaps)

Do not allow any perforation to break the edge of the media, as this may cause the media to split and jam the printer.

Media, cont.

Tickets with Black Mark



⇐ a ⇒ Media Width:

Maximum:	114.0 mm	(4.5 inches)
Minimum:	25.4 mm	(1.00 inches)

⇐ b ⇒ Copy Length:

Minimum:	20.0 mm	(0.8 inches)

⇐ c ⇒ Black Mark Offset:
The distance between the inner edge of the media and the inner edge of the black mark must be:

Maximum:	9.5 mm	(0.37 inches)
Minimum:	No restriction	

⇐ d ⇒ Black Mark End:
The distance between the inner edge of the media and the outer edge of the black mark must be:

Maximum:	No restriction	
Minimum:	25.4 mm	(1.0 inches)

⇐ e ⇒ Black Mark Height:

Common:	12.5 mm	(0.5 inches)
Minimum:	5.0 mm	(0.2 inches)

⇐ f ⇒ Black Mark Y-Position:
The black mark should be as close to the front edge of the ticket as possible. Use a negative *stopadjust* value to control the media feed, so that the tickets can be properly torn or cut off.

The black mark should be non-reflective carbon black on a whitish background.

Media type setup:
• Ticket (w mark)

Do not allow any perforations to break the edge of the media, as this may cause the media to split and jam the printer.

Transfer Ribbons

Intermec offers three types of thermal transfer ribbons optimized for different purposes:

- ***General Purpose (GP/TMX 1100. TMX 1500)*** transfer ribbons allow high speed printing and give a good printout, but are somewhat sensitive to smearing,They may be the best choice for uncoated and coated papers.
- ***High Performance (HP/TMX 2500)*** transfer ribbons allow high speed printing and give a highly readable and defined printout on most face materials with smooth surfaces. They have good "smear resistance" and are most suitable for intricate logotypes and images on matte-coated papers and synthetic face materials.
- ***High Resistance (HR/TMX 3200)*** transfer ribbons give an extremely durable printout, which is resistant to most chemical agents and high temperatures. However, such transfer ribbons set high demands on the receiving face material, which must be very smooth, such as polyesters.

  The use of HR/TMX 3200 ribbons requires the print speed and the energy supplied by the printhead to be controlled with great accuracy according to the receiving face material. Custom-made setup options adapted for special applications can also be created. Consult your distributor.

Ribbon Roll Size

Core

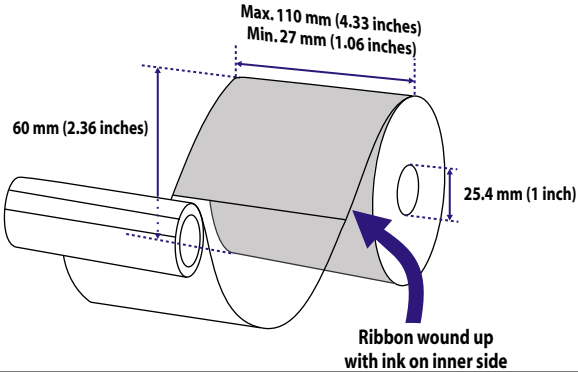
Diameter: 25.4 mm (1 inch)

The printer must be able to pull the end of the used ribbon easily free of the core.

Ribbon Roll

Maximum diameter: 60 mm (2.36 inches)

The ink is on the side or the ribbon that faces the media.



New Supplies and Paper Type Settings

THERMAL TRANSFER PRINTING (Europe)

Ribbon Name	Face Material	New Supplies: Ribbon	New Supplies: Face material	Paper Type setting	Max. print speed: DIR 1 & 3	DIR 2 & 4
GP02	Matte Coated	GB78	GZ0	UBI GP 11	High	Normal
	Vellum	GB78	GZ6	UBI GP 10	High	Normal
HP05	Matte Coated	GF85	GZ0	UBI GP 10	High	Normal
	Transfer Premium	GF85	GZ-10	–	High	Normal
	Polyethylene Matte	GF85	GZ-10	–	High	Normal
	Polyethylene Gloss	GF85	GZ-5	–	Normal	Normal
	Premium Tag	GF85	GZ5	–	Normal	Normal
HP07	Matte Coated	GF100	GZ0	UBI HP 20	High	Normal
	Transfer Premium	GF100	GZ-10	–	High	Normal
	High Gloss White	GF100	GZ-7	UBI HP 21	High	Normal
	Polyethylene Matte	GF100	GZ-10	–	High	Normal
	Polyethylene Gloss	GF100	GZ-5	UBI HP 20	Normal	Normal
	Premium Tag	GF100	GZ5	–	Normal	Normal
HR03	Polyester Gloss	GJ118	GZ-10	UBI HR 31	High	Normal

THERMAL TRANSFER PRINTING (U.S.A.)

Ribbon name	Face material	New Supplies: Ribbon	New Supplies: Face material	Paper Type setting	Max. print speed: DIR 1 & 3	DIR 2 & 4
TMX 1100/1500	Duratran I	GC70	GZ-2	–	Normal	Normal
	Duratran VG	GC70	GZ8	–	Normal	Normal
	Duratran II	GC70	GZ0	–	Normal	Normal
	Duratran II Tag	GC70	GZ1	–	Normal	Normal
	Kimdura	GC70	GZ3	–	Normal	Normal
	Kimdura Tag	GC70	GZ5	–	Normal	Normal
TMX 2500	Duratran II	GG65	GZ0	–	High	Normal
	Duratran II Tag	GG65	GZ1	–	High	Normal
	Kimdura	GG65	GZ3	–	High	High
	Kimdura Tag	GG65	GZ5	–	High	High
TMX 3200	Polyester	GJ105	GZ0	–	Normal	Normal

New Supplies and Paper Type Settings, cont.

DIRECT THERMAL PRINTING (Europe)

Media Name	New Supplies setting	Paper Type setting	Max. print speed: DIR 1 & 3	DIR 2 & 4
Economy	GQ90	–	High	Normal
Eco Board	GY90	–	Normal	Normal
Premium	GS100	UBI DT 110	High	Normal
Top Board	GS105	–	Normal	Normal
UBI DT 110 +10%	GS110	UBI DT 120	Normal	Normal
UBI DT 110 +15%	GS115	UBI DT 110+	Normal	Normal
UBI DT 110 +30%	GS120	UBI DT 110++	Normal	Normal

DIRECT THERMAL PRINTING (U.S.A.)

Media Name	New Supplies setting	Paper Type setting	Max. print speed: DIR 1 & 3	DIR 2 & 4
Duratherm II	GT120	–	Normal	Normal
Duratherm Ltg	GT98	–	Normal	Normal
Duratherm IR	GT85	–	Normal	Normal
Duratherm II Tag	GT110	–	Normal	Normal

LINERLESS PRINTING (Europe and U.S.A.)

Media Name	New Supplies setting	Paper Type setting	Max. print speed: DIR 1 & 3	DIR 2 & 4
Intermec LinerLess	GS103	see note	Normal	Normal
Note: The new supplies setting GS103 approximately corresponds to the paper type setting UBI DT 110.				

Interfaces

Parallel Interface

The EasyCoder E4 has two interfaces: Parallel Centronics and Serial RS-232.

Standard
IEEE 1284-I compliant

Interface Cable

Computer end:	Depends on type of host computer. IBM-PC: DB-25pin male connector.
Printer end:	36pin female Centronics connector.

Pin	Function	Transmitter
1	/Strobe	Host
2-9	Data 0-7	Host
10	Ack	Printer
11	Busy	Printer
12	Error	Printer
13	Select	Printer
14	Autofd	Host
15	N/C	
16	Signal ground	
17	Chassis ground	
18	Logic high	Printer
19-30	Signal ground	
31	/Init	Host
32	/Fault	Printer
33-35	N/C	
36	/Selectin	Host

Serial Interface

The EasyCoder E4 has two interfaces: Parallel Centronics and Serial RS-232.

Protocol

9600 baud, No parity, 8 data bits, 1 stop bit (default).
To change the serial interface settings, use the **SETUP** command.

Interface Cable

Computer end: DB-9pin or DB-25pin female connector depending on type of computer

Printer end: DB-9pin male connector.

Host		Printer			Host	
Signal	**DB-9**	**DB-9**	**Signal**	**DB-9**	**DB-25**	**Signal**
		1	+5V DC*	1		
RXD	2	2	TXD	2	3	RXD
TXD	3	3	RXD	3	2	TXD
DTR	4	4	–	4	20	DTR
GND	5	5	GND	5	7	GND
DSR	6	6	RDY	6	6	DSR
RTS	7	7	CTS	7	4	RTS
CTS	8	8	RTS	8	5	CTS
		9	–	9		

**/. Max. 150 mA. Short-circuit protected.*

Notes

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