Installation Instructions

P/N 1-960343-02
Edition 2
September 1998

EasyCoder 501/601 Industrial Interface Kit

Intermec

A UNOVA Company

INDUSTRIAL INTERFACE KIT

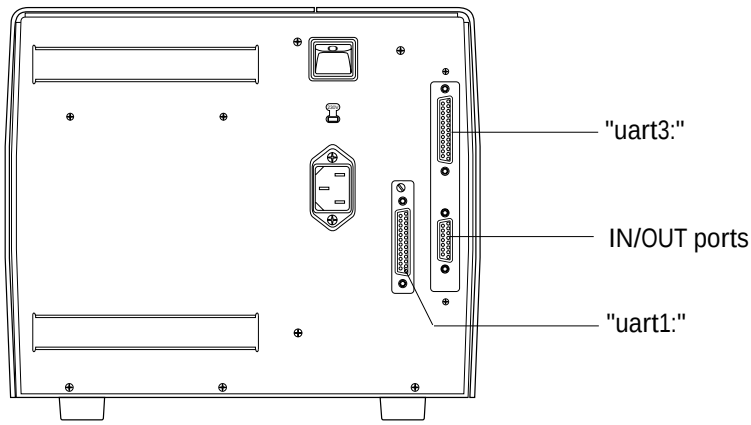
Introduction

Note:
Illustrations show an EasyCoder 501. The principles for fitting this optional equipment in an EasyCoder 601 are exactly the same.

The Industrial Interface Board adds one serial communication port ("uart3") and one connector with four IN and four OUT ports to the standard serial communication port ("uart1:").

The IN/OUT ports provide an interface between the printer and various types of external equipment, such as gates, conveyor belts, wrappers etc. The input and output signals can be read or initiated by means of *Intermec Fingerprint* instructions. Thereby the printer can be used to control the external devices – or be controlled by them – according to the program.

The printer'sfirmware detects when an Industrial Interface Board is installed and adds communication and buffer setup options for the communication port "uart3:".



When an Industrial Interface Board is fitted, the following types of interfaces become available:

"uart1:"	*Fitted on printer's CPU board.*
RS 232C *RS 422 or 20 mA CL*	*Standard. Selected by strap.* *Option. Additional circuits required.*
"uart3:"	*Fitted on Industrial Interface Board.*
RS 232C	
IN/OUT connector	*Fitted on Industrial Interface Board.*
4 input channels *4 output channels*	*The software can read the status of four different input signals.* *The software can set four different signals to either open or closed contact and also read their status.*

The Industrial Interface Kit consists of:

- 1 Interface board assy.
- 2 Screws MRX-Z 3 × 6 FZB (not intended for *EasyCoder 501/601*)
- This Installation Instruction

EasyCoder 501/601
Industrial Interface Kit
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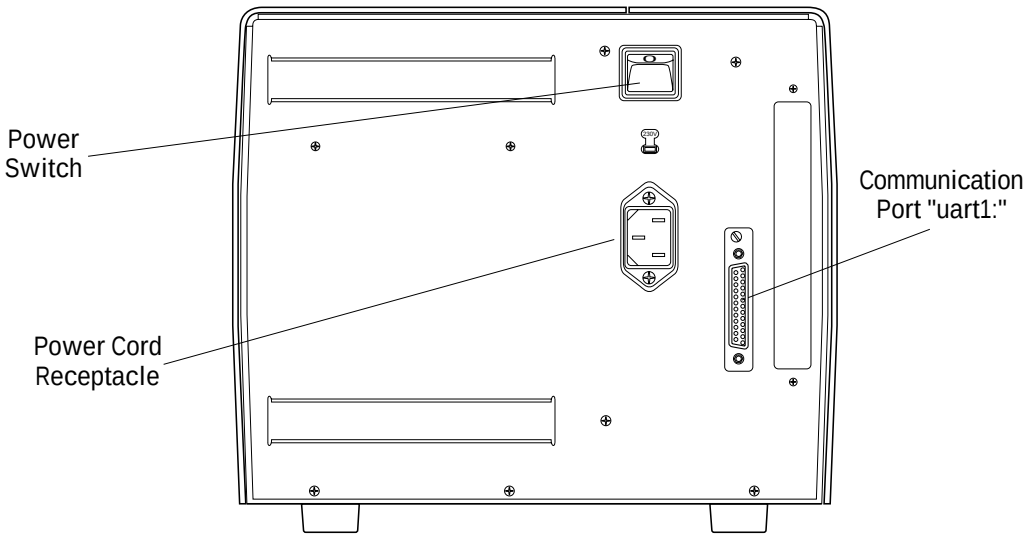
INDUSTRIAL INTERFACE KIT, cont'd.

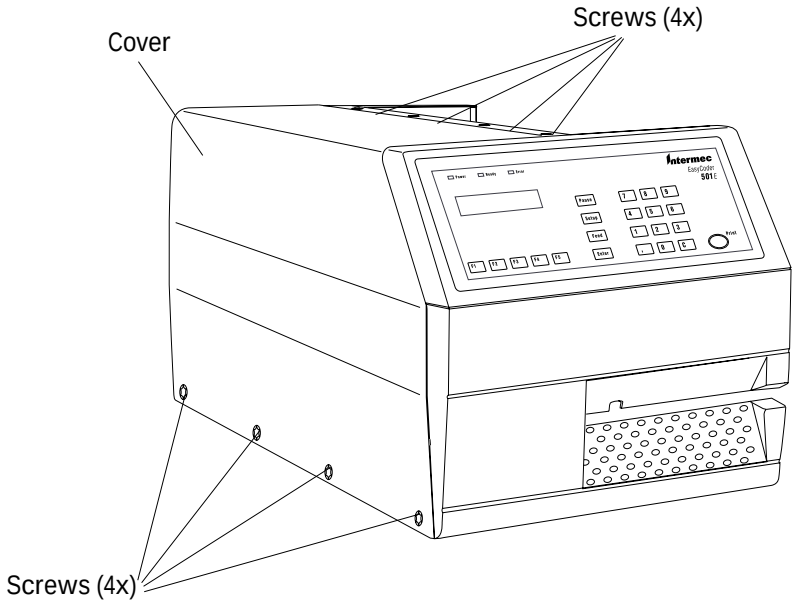
Step-by-Step Installation Instructions

The only tool required is a Torx #T10 screwdriver.

- ❑ Turn off the power and remove the power cord.
- ❑ Remove the communication cable from communication port "uart1:".



- ❑ Open the right hand door.
- ❑ Remove the eight Torx screws that hold the cover over the left part of the printer (see illustration below).
- ❑ Remove the cover.

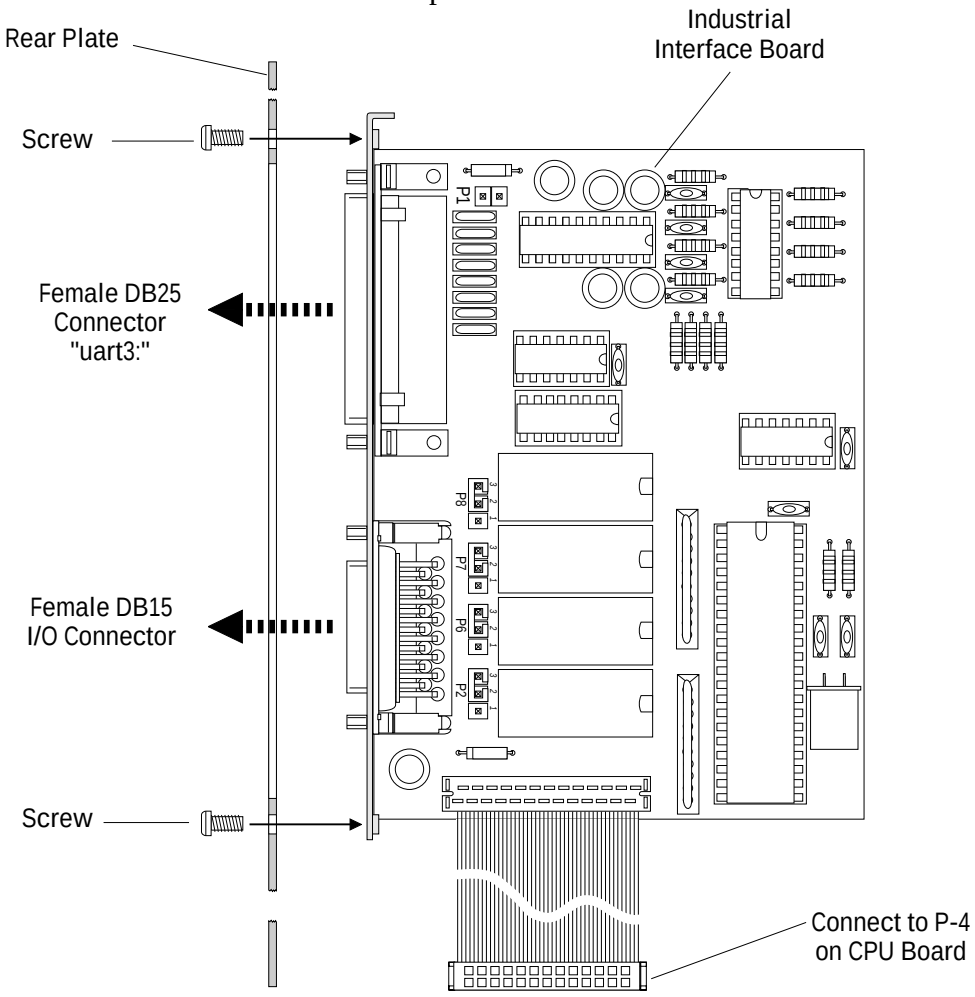


Continued!

INDUSTRIAL INTERFACE KIT, cont'd.

Step-by-Step Installation Instructions, cont'd.

- ❑ Remove the existing cover plate.
- ❑ Make sure that the CPU board is strapped and equipped for the desired type of communication on "uart1:" (see the *EasyCoder 501* or *EasyCoder 601* Technical Manual). Once the interface board has been fitted, it will be difficult to access the rear part of the CPU board.
- ❑ Fit the required straps on the Industrial Interface Board as described on page 5.
- ❑ Connect the cable from the interface board to connector **P-4** at the bottom rear corner of the CPU board. Be careful so the interface board and the CPU board do not come in contact with each other, which possibly may cause damage or short-circuiting.
- ❑ Fit the interface board assembly to the printer's rear plate from the inside as illustrated below using the same screws that held the removed cover plate.

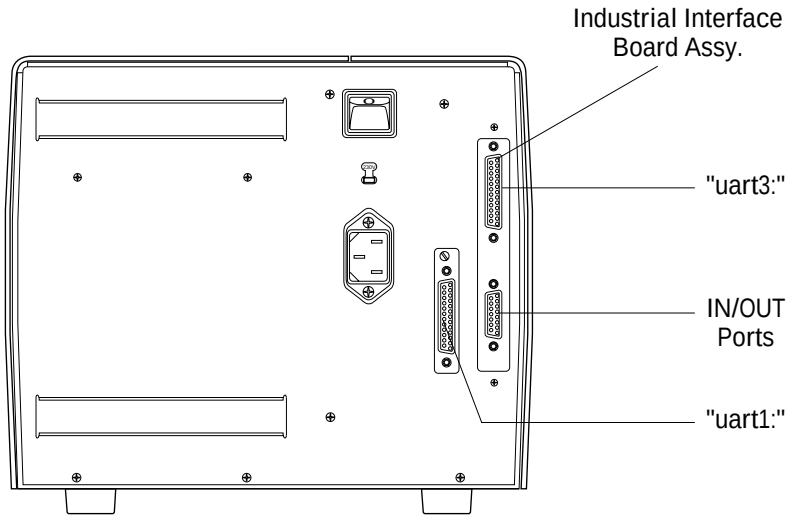


Continued!

INDUSTRIAL INTERFACE KIT, cont'd.

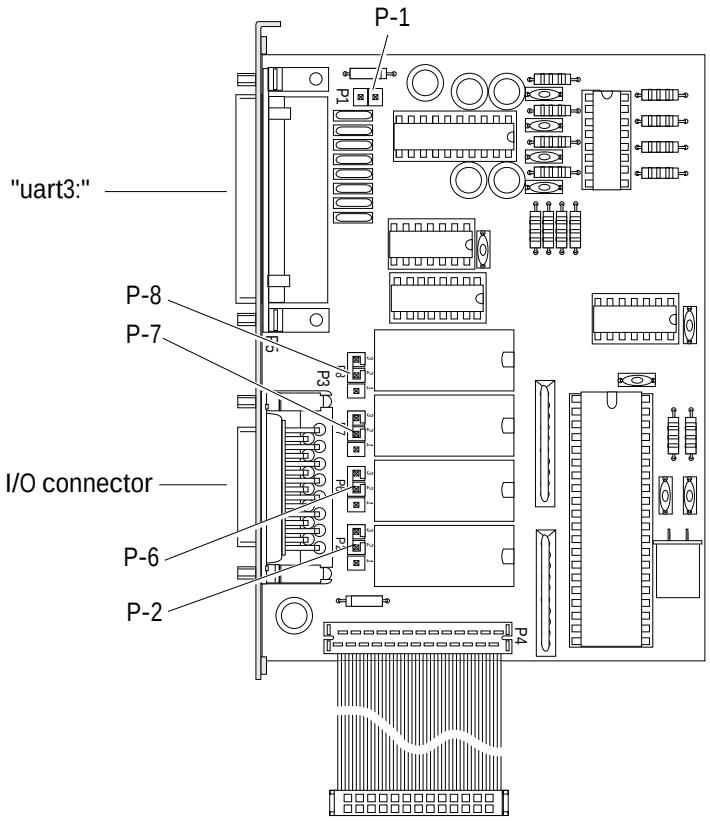
Step-by-Step Installation Instructions, cont'd.

- ❑ Reassemble the printer in reverse order.
- ❑ Connect the communication cables to their respective connectors. Please refer to page 6 for pinout descriptions.
- ❑ Connect the power cord and turn on the power.
- ❑ If you intend to use the communication port "uart3:" (RS 232C), set up its communication and buffer parameters as described in the *EasyCoder 501* or *EasyCoder 601* Technical Manual.



INDUSTRIAL INTERFACE KIT, cont'd.

Straps



Communication Port "uart3:"

RS 232C:
There are no straps for controlling the RS 232C interface on "uart3:".

External +5V:
External +5V (max. 200 mA) can be made available on pin 16 by fitting a strap on **P-1**.

Be careful not to enable this option unintentionally, which may cause harm to the connected terminal, computer or other device.

In/Out Connector

In/Out port 201-204:
One relay for each port switches the OUT signal to open or closed as PORTOUT ON/OFF statements are executed in the program.

Four straps, **P-2**, **P-6**, **P-7** and **P-8**, control the relation between relay and output signal on output ports **201**–**204** respectively:

PORTOUT stmt	Strap between pins	OUT signal
PORTOUT (<nexp>) ON	*1–2 (upper position)*	*Open*
PORTOUT (<nexp>) ON	*2–3 (lower position)*	*Closed*
PORTOUT (<nexp>) OFF	*1–2 (upper position)*	*Closed*
PORTOUT (<nexp>) OFF	*2–3 (lower position)*	*Open*

INDUSTRIAL INTERFACE KIT, cont'd.

Connector Configuration

"uart3:" is a DB25 female connector.
The **In/Out connector** is a DB15 female connector.

The mounting holes are connected to chassis ground.

Pin	"uart3:" *DB25 female*	Remarks
1	*GNDC*	*Cable shield*
2	*TXDB*	*Transmitted data from printer*
3	*RXDB*	*Received data to printer*
4	*RTSB*	*RTS from printer*
5	*CTSB*	*CTS to printer*
6	*DRSB*	*DSR to printer*
7	*GNDI*	*Signal ground*
8	*–*	*not used*
9	*–*	*not used*
10	*–*	*not used*
11	*–*	*not used*
12	*–*	*not used*
13	*–*	*not used*
14	*–*	*not used*
15	*–*	*not used*
16	*+5VEXT*	*+ 5V max 200 mA**
17	*–*	*not used*
18	*–*	*not used*
19	*–*	*not used*
20	*DTRB*	*DTR pemanently high*
21	*–*	*not used*
22	*–*	*not used*
23	*–*	*not used*
24	*–*	*not used*
25	*–*	*not used*

**/. If strap fitted on P-1*

Pin	In/Out connector *DB15 female*	Remarks
1	*OUT 201*	*See example on next page*
2	*OUT 201*	
3	*OUT 202*	
4	*OUT 202*	
5	*OUT 203*	
6	*OUT 203*	
7	*OUT 204*	
8	*OUT 204*	
9	*IN 101*	*See example on next page*
10	*IN 101*	
11	*IN 102*	
12	*IN 102*	
13	*IN 103*	
14	*IN 104*	
15	*IN 103/104*	

OUT signals are controlled by means of **PORTOUT (<nexp>) ON|OFF** statements.

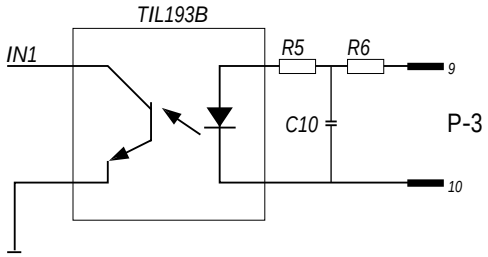
IN and **OUT** signals are read by means of **PORTIN (<nexp>)** functions.

Also see *Intermec Fingerprint 6.13 Programmer's Manual*.

INDUSTRIAL INTERFACE KIT, cont'd.

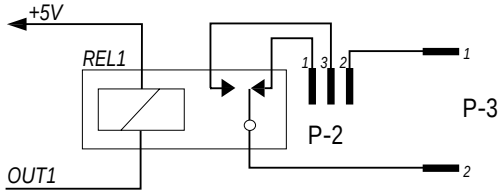
Connector Configuration, cont'd.

Example of an IN port



Signal	Min.	Typical	Max.
Input Voltage High	*10V*	*24V*	*40V*
Input Voltage Low	*-1V*	*0V*	*1V*

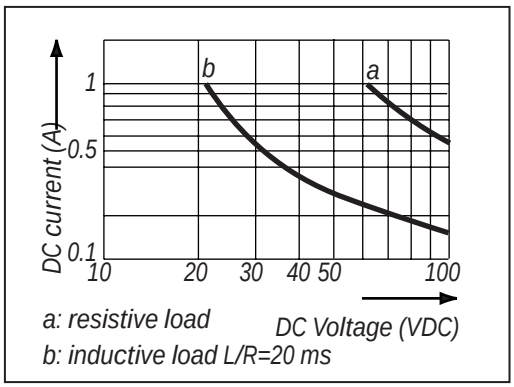
Example of an OUT port



Max AC Load Breaking Capacity

Current	*max. 1 A*
Switching power	*max. 100VA AC*
Switching voltage	*max. 100V AC*

Max. DC Load Breaking Capacity



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