

Installation Instructions

*P/N 1-960472-01
Edition 2
January 2001*

EasyCoder XP- & F-Series Double Serial Interface Board

 **intermec**
Technologies Corporation

A **UNOVA** Company

Description

Application of Use

The Double Serial Interface Board is an optional device for EasyCoder 501 XP, EasyCoder 601 XP, EasyCoder F2, and EasyCoder F4, that provides the printer with two extra interfaces, "uart2:" and "uart3:". The printer must be fitted with the Intermec Fingerprint v7.xx firmware.

"uart2:"

This interface can be fitted with straps and circuits for one of the following alternatives:

- RS-232
- RS-422 non isolated
- RS-422 isolated
- RS-485

"uart3:"

This interface can be fitted with straps and circuits for one of the following alternatives:

- RS-232
- RS-422 non isolated
- 20 mA Current Loop

Installation Kit

The Double Serial Interface Kit contains:

- One interface board fitted for RS-232 on both interfaces.
- One cover plate (for EasyCoder XP-series printers only.)
- One flat cable (for EasyCoder F-series printers only.)
- This Installation Instruction booklet.

Circuits for RS-422 non-isolated, RS-422 isolated, RS-485, and 20 mA current loop can be bought separately from Intermec.

Information in this manual is subject to change without prior notice and does not represent a commitment on the part of Intermec Printer AB.

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Centronics is a registered trademark of Genicom Corporation.

Torx is a registered trademark of Camcar Division of Textron Inc.

Installation

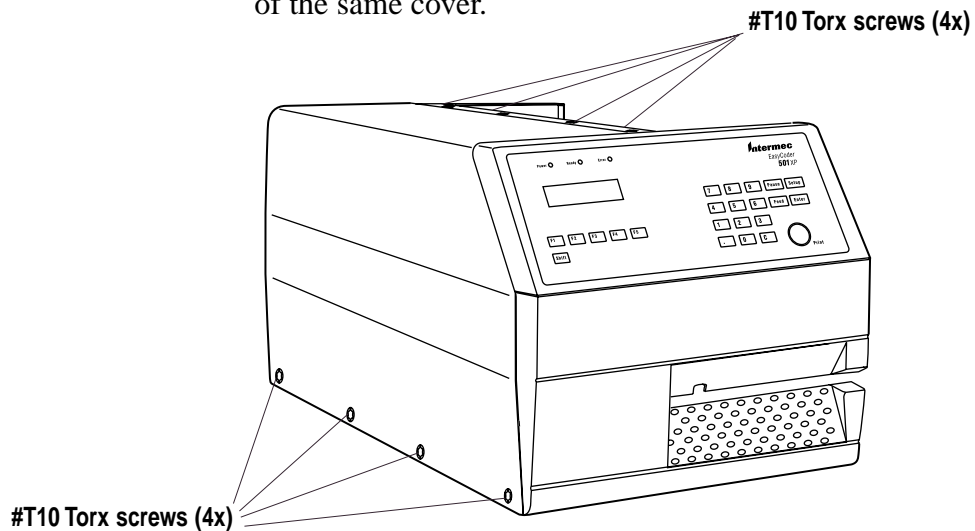
EasyCoder 501 XP and 601 XP

- Switch off the power and disconnect the power cord.

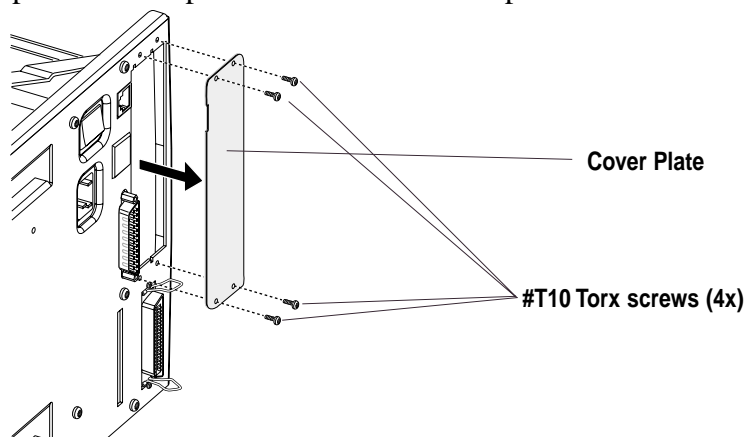
Warning!

The electronics compartment contains high voltage components and wires. Do not open the electronics compartment before the printer is safely disconnected from any AC supply.

- Open the right-hand door.
- Remove the four #T10 Torx screws along the lower edge of the cover over the electronics compartment.
- Remove the four #T10 Torx screws that hold the upper edge of the same cover.



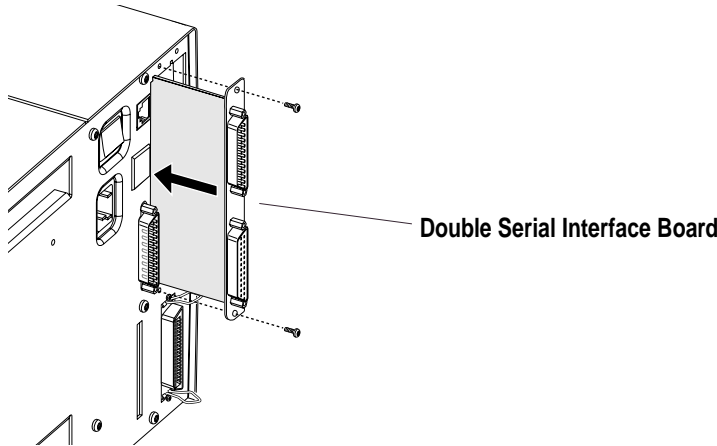
- Remove the cover and put it aside on a soft cloth or similar to avoid scratches.
- Remove the four #T10 Torx screws that hold the interface cover plate above the parallel interface connector on the printer's rear plate. Remove the cover plate.



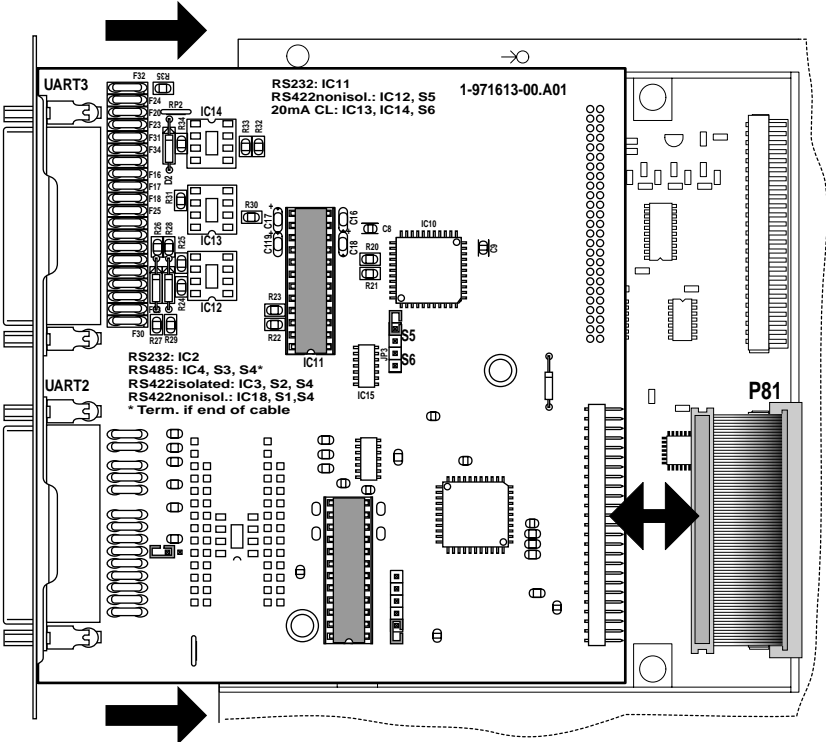
- Save the cover plate for possible later use. Keep the screws.

EasyCoder 501 XP and 601 XP, cont.

- If necessary, fit or remove circuits and straps to adapt the Double Serial Interface Board for the desired type of serial interface as described in Chapter 3 and 4.
- Insert the Double Serial Interface Board with the components side facing right, as seen from behind. Check that the board fits into the two square cut-outs on the left side of the slot.

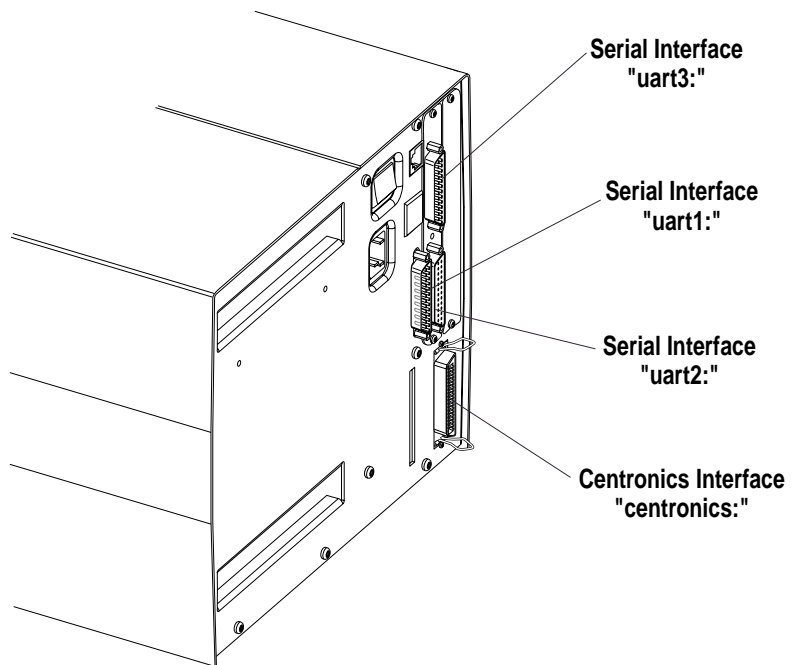


- Attach the Double Serial Interface Board to the printer's rear plate by means of two of the screws left over when you removed the original cover plate.
- Using the remaining two screws, attach the narrow cover plate included in the delivery so it covers the right side of the slot.
- Connect the cable running from **P81** on the CPU board to connector **P1** on the Double Serial Interface Board.



EasyCoder 501 XP and 601 XP, cont.

- Put back the cover over the electronics compartment. Press firmly to compress the leaf springs along the front and rear edges of the electronics compartment.
- Connect the power cord.
- Now you have two new interface connectors on the printer's rear plate in addition to the standard serial interface "uart1:" and the standard parallel interface "centronics:". Connect the interface cables and switch on the power.
- Enter the Setup Mode to set the proper baud rate, character length, parity, number of stop bits, flowcontrol, new line, and buffer size parameters for the new serial ports "uart2:" and "uart3:".

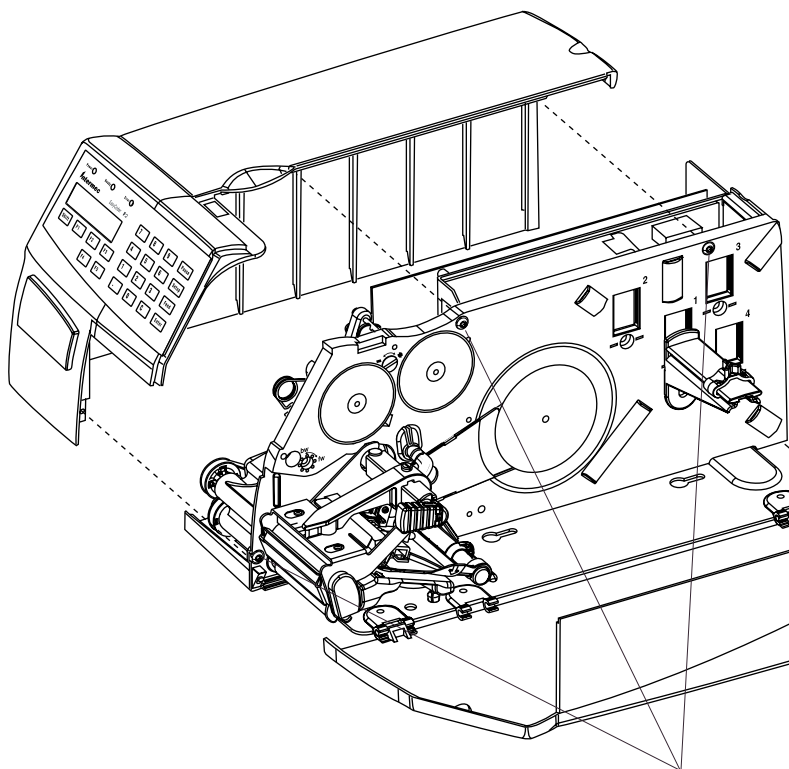


EasyCoder F2 and F4

- Open the electronics compartment by removing the front/left-hand cover, which is held by three #T20 Torx screws from the media compartment side of the center section.

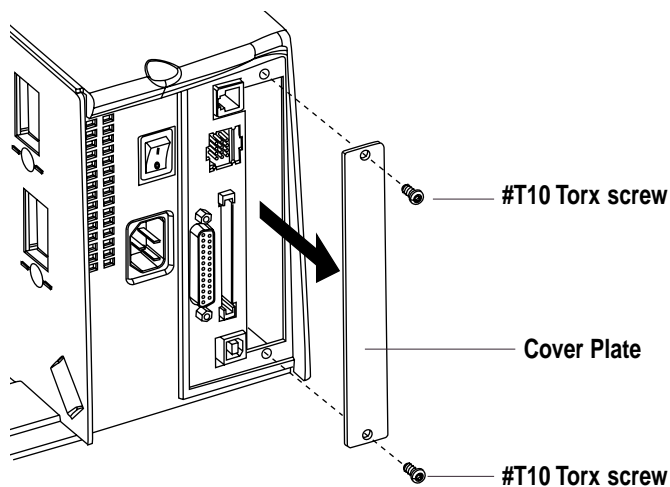
Warning!

Switch off the power and disconnect the power cord. The electronics compartment contains high voltage components and wires. Do not open the electronics compartment before the printer is safely disconnected from any AC supply.



#T20 Torx screws (x3)

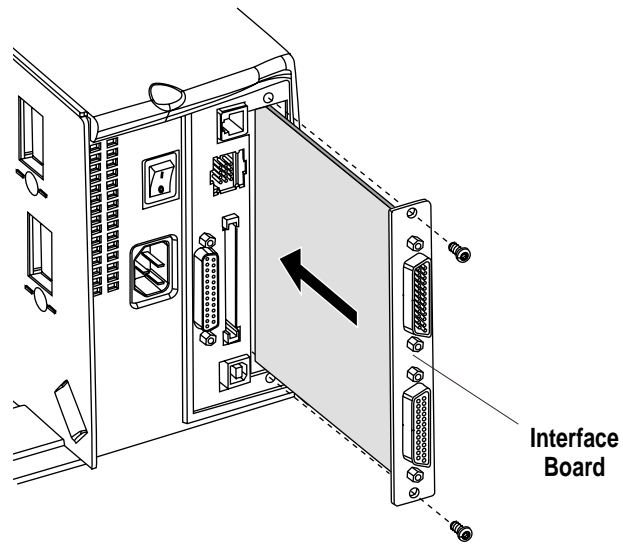
- Remove the two #T10 Torx screws that hold the interface cover plate on the printer's rear plate. Remove the cover plate.



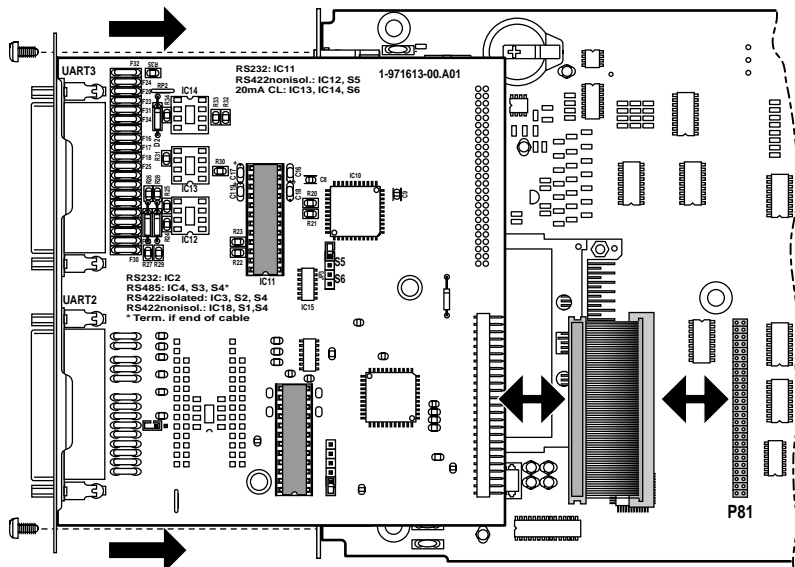
- Save the cover plate for possible later use. Keep the screws.

EasyCoder F2 and F4, cont.

- If necessary, fit or remove circuits and straps to adapt the Double Serial Interface Board for the desired type of serial interfaces as described in Chapter 3 and 4.
- Insert the interface board with the components side facing right, as seen from behind.
- Attach the interface board to the printer's rear plate by means of the two screws left over when you removed the original cover plate.

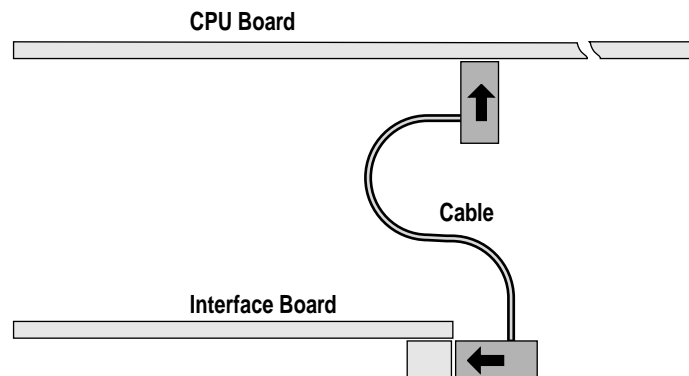


- Connect the flat cable included in the kit between connector **P81** on the CPU board and connector **P1** on the interface board (also see the next page.)

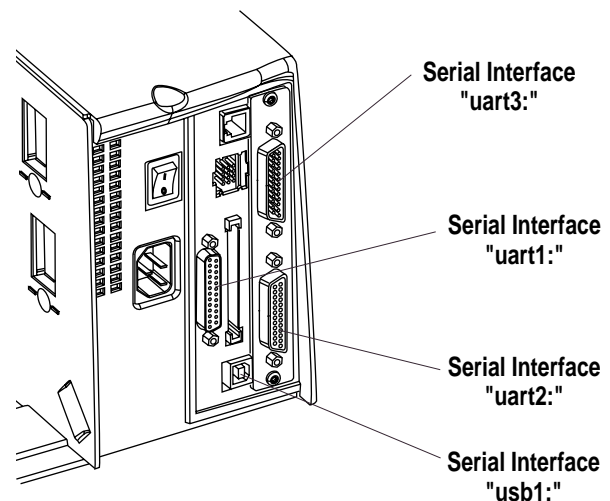


EasyCoder F2 and F4, cont.

- Make sure that the cable between CPU board and interface board runs as illustrated below.



- Put back the cover over the electronics compartment.
- Connect the power cord.
- Now you have two new interface connectors on the printer's rear plate in addition to the standard interfaces "uart1:" and "usb1:". Connect the interface cables and switch on the power.
- Enter the Setup Mode to set the proper baud rate, character length, parity, number of stop bits, flowcontrol, new line, and buffer size parameters for the new serial ports "uart2:" and "uart3:".



Serial Port Configuration "uart2:"

Introduction

The serial communication port "uart2:" can be configured for **one** of four different types of serial communication:

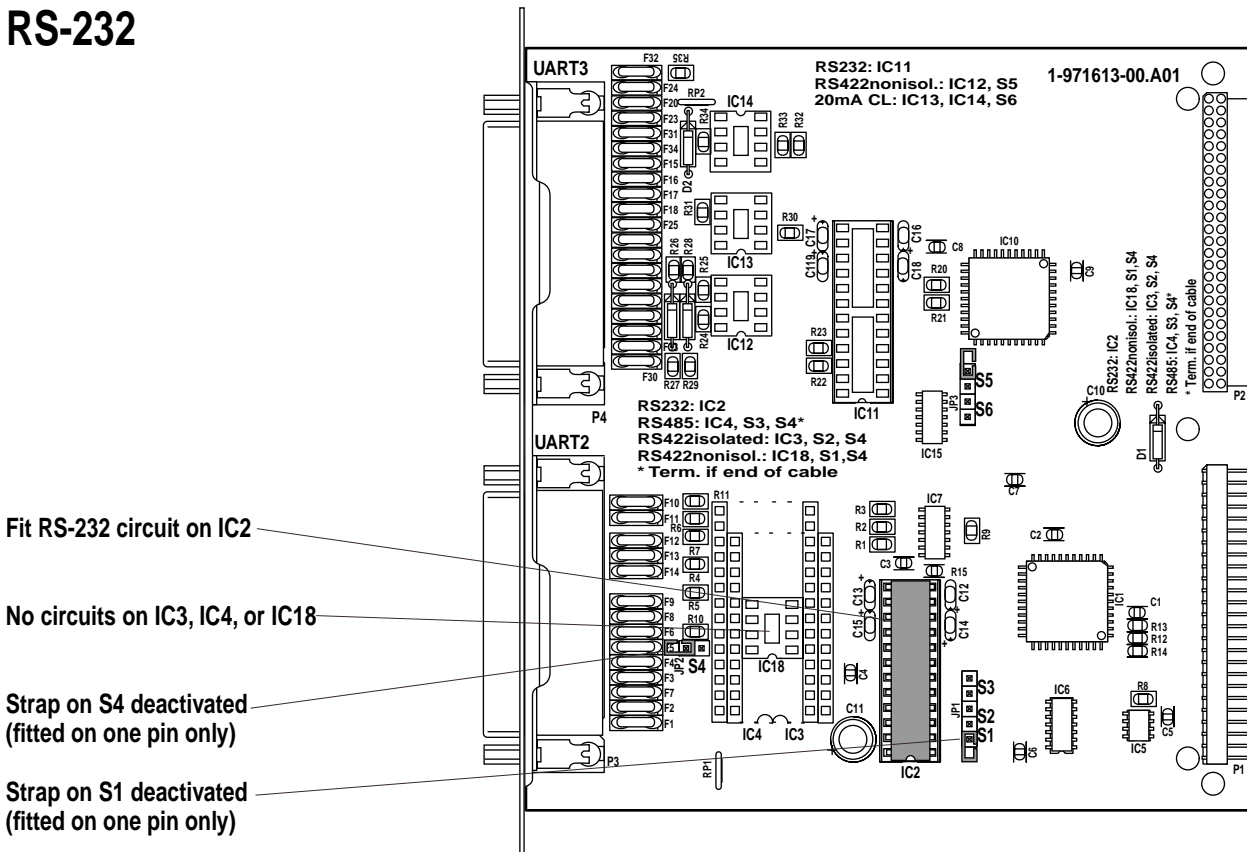
- RS-232
- RS-422 non isolated
- RS-422 isolated
- RS-485

By fitting or removing certain circuits and straps, the desired type of interface can be selected. This is either done at factory or by the customer. There can only be one driver circuit and its corresponding straps fitted at a time.

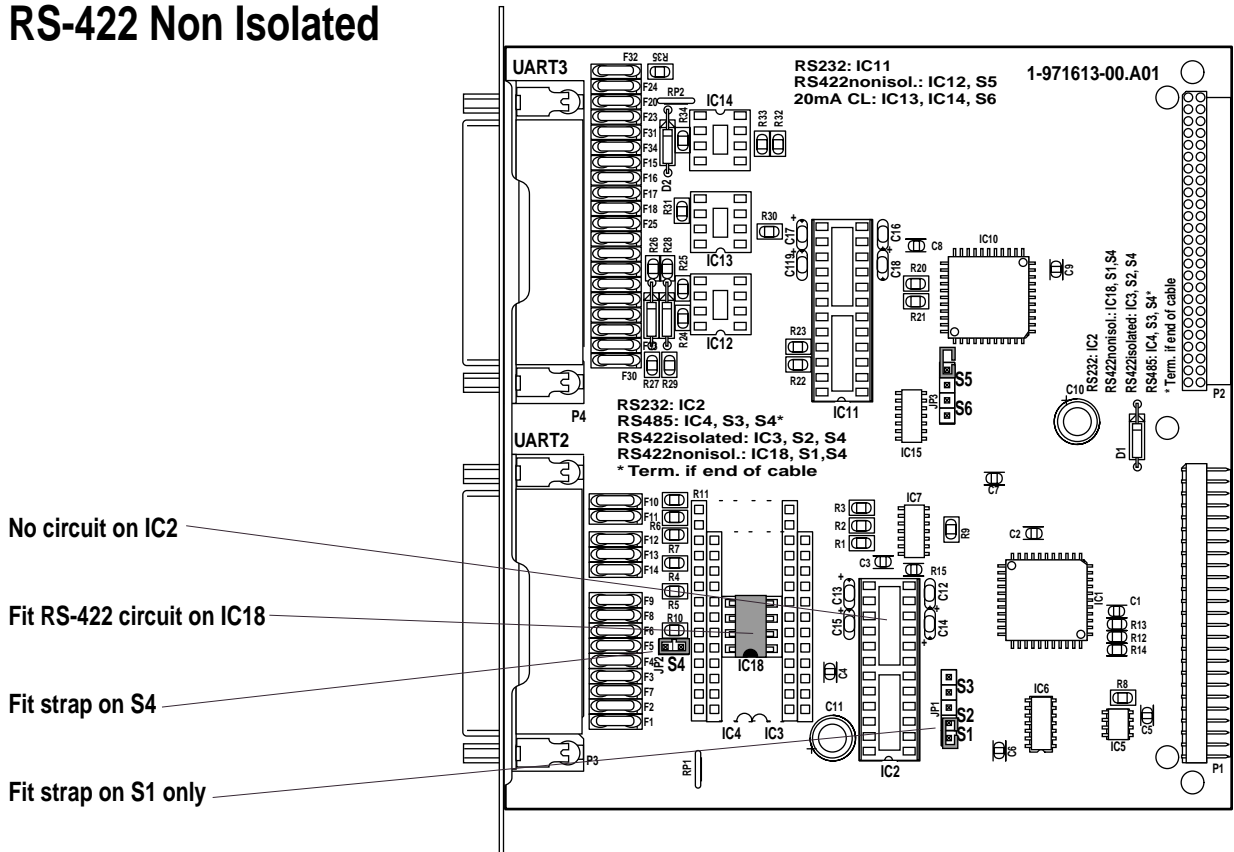
Caution!

When fitting circuits yourself, do it before connecting the interface board and make sure that the circuits are not fitted upside down (see front end markings in the illustrations in this chapter.) Also take care so all "legs" of the circuits fit into their respective slots in the socket and are not bent. Also, take proper precautions so as to protect the board and circuits from electrostatic discharges.

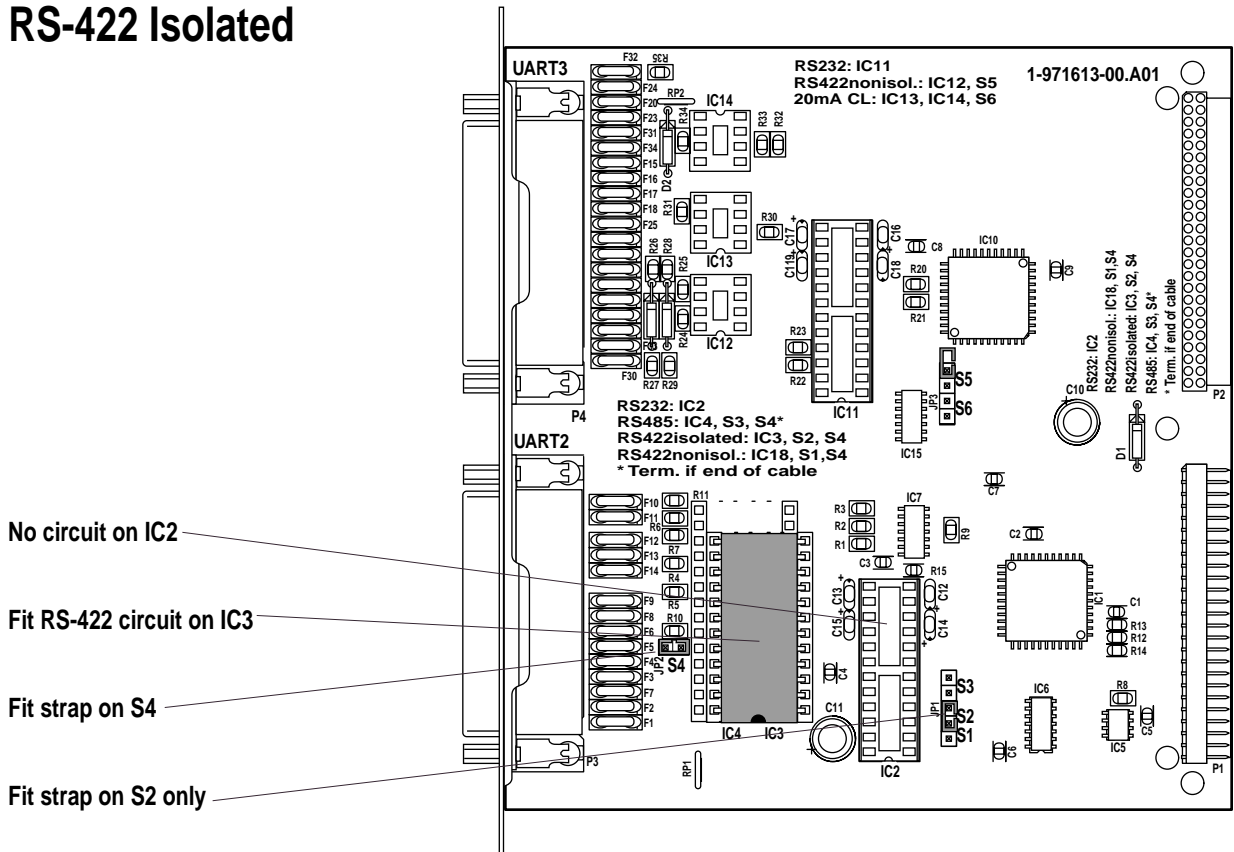
RS-232



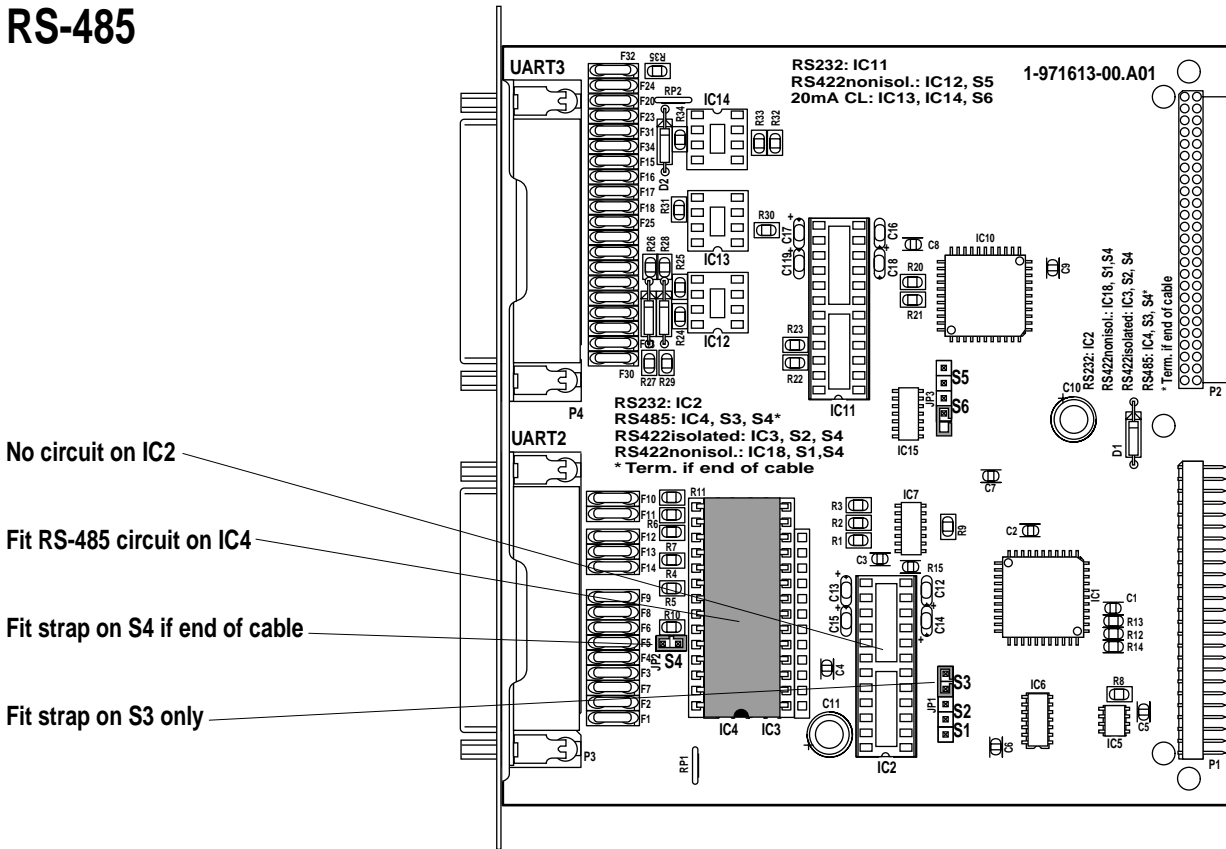
RS-422 Non Isolated



RS-422 Isolated



RS-485



Connector Configuration

The serial interface for "uart2:" uses a female DB-25pin connector.

| Pin | Signal Name | Description |
|-------|-------------|---|
| 1 | | Not connected |
| 2 | TxD | RS-232 Transmitter |
| 3 | RxD | RS-232 Receiver |
| 4 | RTS | RS-232 Request To Send |
| 5 | CTS | RS-232 Clear To Send |
| 6 | DSR | RS-232 Data Set Ready |
| 7 | GND | Ground |
| 8-14 | | Not connected |
| 15 | +RS422RI | +RS-422 Receive |
| 16 | +5V | 5 Volt for external use (max. 200 mA) ^{1/} |
| 17 | -RS422RI | - RS-422 Receive |
| 18 | | Not connected |
| 19 | +RS422DO | + RS-422 Transmit/+ RS-485 |
| 20 | DTR | RS-232 Data Terminal Ready |
| 21 | -RS422DO | - RS-422 Transmit/- RS-485 |
| 22 | RI | RS-232 Ring Indicator |
| 23 | Shield | Optional shield for RS-422 and RS-485 |
| 24-25 | | Not connected |

^{1/}. The external 5V is automatically switched off at overload.

Serial Port Configuration "uart3:"

Introduction

The serial communication port "uart3:" can be configured for **one** of three different types of serial communication:

- RS-232
- RS-422 non isolated
- 20 mA current loop

By fitting or removing certain circuits and straps, the desired type of interface can be selected. This is either done at factory or by the customer.

Caution!

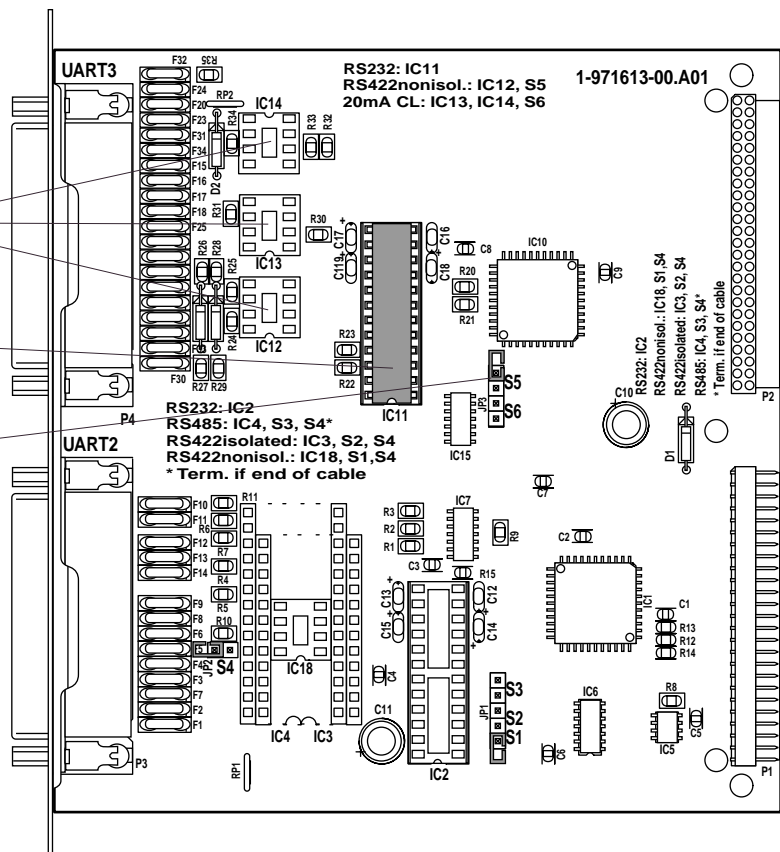
When fitting circuits yourself, do it before connecting the interface board and make sure that the circuits are not fitted upside down (see front end markings in the illustrations in this chapter.) Also take care so all "legs" of the circuits fit into their respective slots in the socket and are not bent. Also, take proper precautions so as to protect the board and circuits from electrostatic discharges.

RS-232

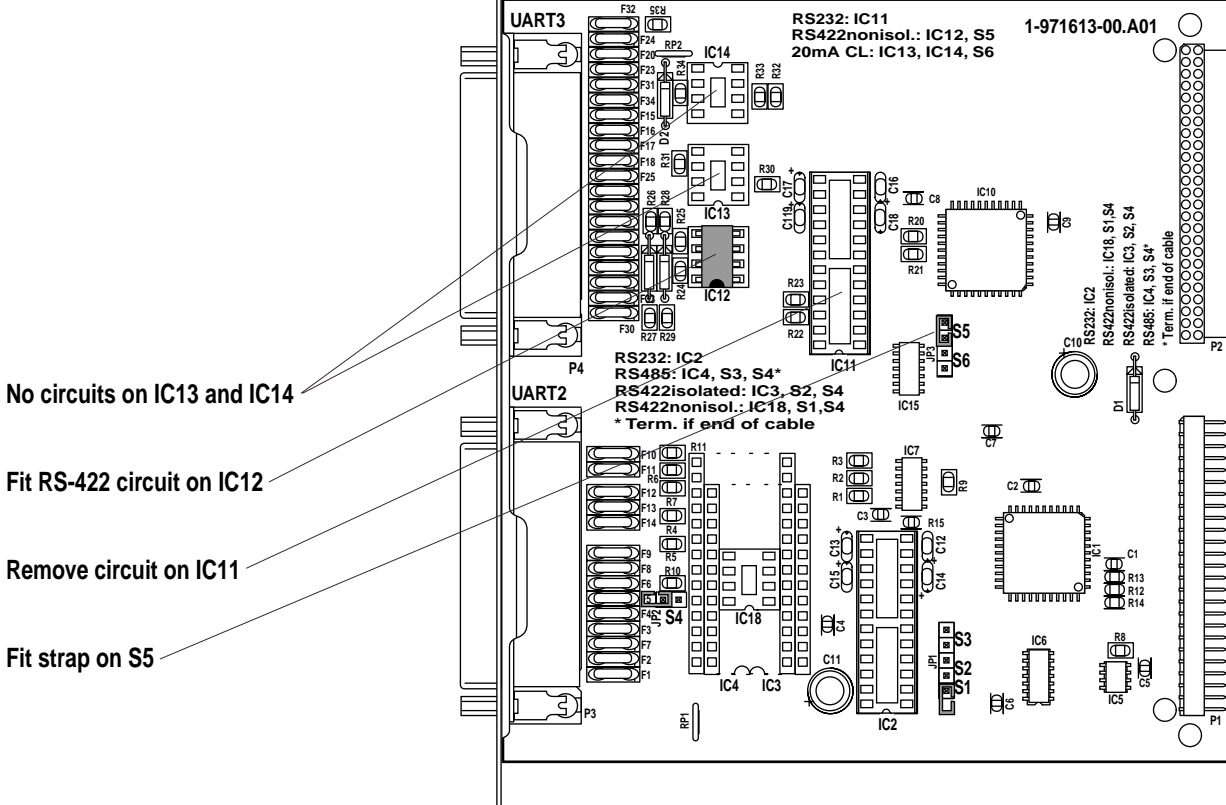
No circuits on IC12, IC13, or IC14

RS-232 circuit fitted on IC11

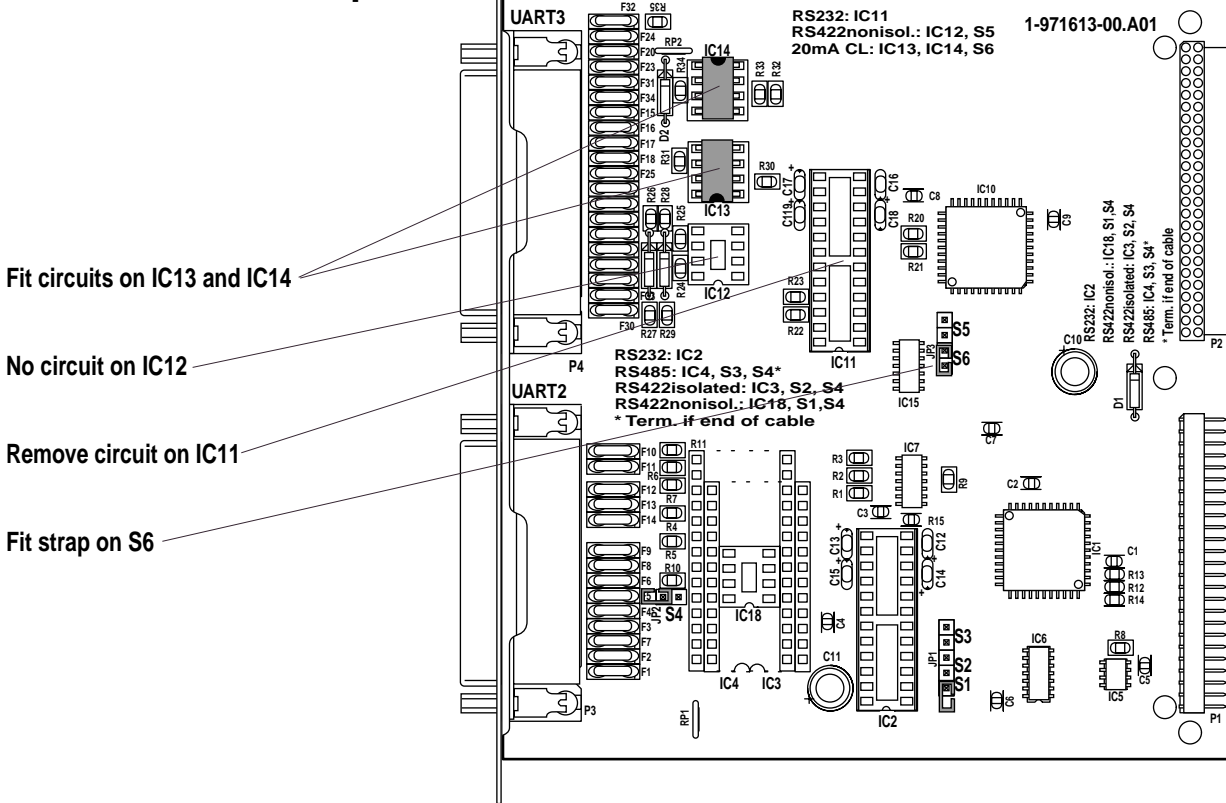
Strap on S5/S6 deactivated
(fitted on one pin only)



RS-422 Non Isolated



20 mA Current Loop



Connector Configuration

The serial interface for "uart3:" uses a male DB-25pin connector.

| Pin | Signal Name | Description |
|-----|-----------------|--|
| 1 | | Not connected |
| 2 | TxD | RS-232 Transmitter |
| 3 | RxD | RS-232 Receiver |
| 4 | RTS | RS-232 Request To Send |
| 5 | CTS | RS-232 Clear To Send |
| 6 | DSR | RS-232 Data Set Ready |
| 7 | GND | Ground |
| 8 | | Not connected |
| 9 | +20M1 | + 20 mA current loop |
| 10 | -20M1 | - 20 mA current loop |
| 11 | +TXD | + TXD 20 mA current loop |
| 12 | -TXD | - TXD 20 mA current loop |
| 13 | +20M2 | + 20 mA current loop (printer active receiver) |
| 14 | -20M2 | - 20 mA current loop (printer active receiver) |
| 15 | +RS422I | + RS-422 Receive |
| 16 | +5V | 5 Volt for external use (max. 200 mA) ¹ |
| 17 | -RS422I | - RS-422 Receive |
| 18 | +RxD | + TXD 20 mA current loop |
| 19 | +RS422O/+RS 485 | + RS-422 Transmit/+RS 485 |
| 20 | DTR | RS-232 Data Terminal Ready |
| 21 | -RS422O/-RS485 | - RS-422 Transmit/-RS 485 |
| 22 | RI | RS-232 Ring Indicator |
| 23 | Shield | Optional shield for RS-422 |
| 24 | | Not connected |
| 25 | -RxD | - TXD 20 mA current loop |

¹/. The external 5V is automatically switched off at overload.

