



**Scout<sup>®</sup>**  
**RS232 Interface**  
INSTRUCTION MANUAL

**Interfaz RS232**  
MANUAL DE INSTRUCCIONES

**Interface RS232**  
MODE D'EMPLOI

**RS232-Schnittstelle**  
BEDIENUNGSANLEITUNG

**Interfaccia RS232**  
MANUALE D'ISTRUZIONI

**RS232 组件**  
使用说明书

**RS232 인터페이스**  
사용 설명서

**Интерфейс RS232**  
РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ



## INTRODUCTION

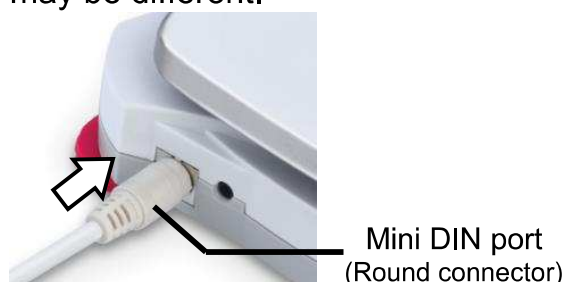
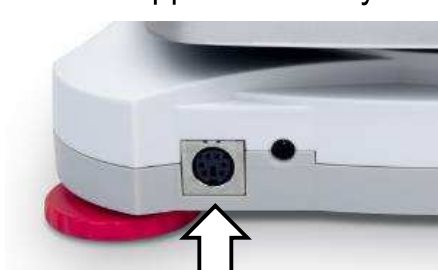
This Interface Kit is for use with OHAUS Scout STX, SPX, SKX and SJX series products.

## INTERFACE INSTALLATION

Install the Interface module on the mini DIN port (round connector) located at the rear side of the balance as shown. During this process, please make sure the balance is powered off.

Notes:

- Please make sure the small triangle mark (▲) on the round connector is at the bottom and then plug in.
- The appearance of your model may be different.



## SETUP

- A) The OHAUS Interface is preset to communicate using the following settings: **9600 baud, 8 bit, no parity, no handshake**. Determine the RS232 parameters required for the printer or computer that is to be connected. See computer or printer documentation if assistance is required. If the parameters do not match, it will be necessary to change either the balance settings, or the computer / printer settings.
- B) Upon installation of the interface, the balance will recognize the RS232 Interface and add relevant items to the menu. Configure the balance to the desired RS232 and printing parameters; refer to the balance Instruction Manual for assistance in using the menus.

**For SPX, SKX and SJX Balances:**

Upon installation, the balance will show [r.5.2.3.2] during the power sequence.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRINT</b><br>Reset: <b>no</b> , yes<br>Stable: <b>off</b> , on<br>A.Print: <b>off</b><br>On.Stable<br>interval<br>accept<br>continuous<br>Content: Result (-> off, <b>on</b> )<br>Gross (-> <b>off</b> , on)<br>Net (-> <b>off</b> , on)<br>Tare (-> <b>off</b> , on)<br>Header (-> <b>off</b> , on)<br>Footer (-> <b>off</b> , on)<br>Mode (-> <b>off</b> , on)<br>Unit (-> off, <b>on</b> )<br>Info (-> <b>off</b> , on)<br>Layout: Format (->Single, <b>Multi</b> )<br>Feed (-> <b>Line</b> , 4 Lines, Form)<br>End Print: Exit menu | <b>RS232</b><br>Reset: <b>no</b> , yes<br>Baud Rate: 1200... <b>9600</b> ...115200<br>Parity: 7 even, 7 odd, 7 none,<br><b>8 none</b><br>Stop bit: <b>1</b> , 2<br>Handshake: <b>none</b> , XOn-XOff<br>Alternate command: Print (A... <b>P</b> ...Z)<br>Tare (A... <b>T</b> ...Z)<br>Zero (A... <b>Z</b> )<br>End RS232: Exit menu |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

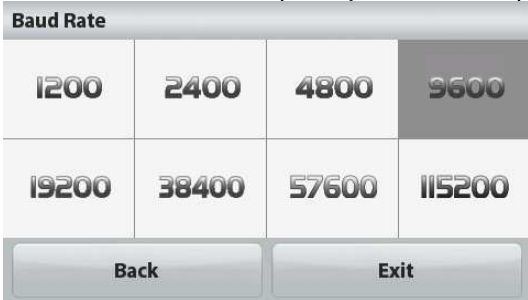
**Note:** Items with bold font are default settings.

**SETUP DEFINITIONS**

| Menu Settings                                 | Explanation                                                                                                                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRINT / A. Print – Off                        | Only sends data when PRINT is pressed.                                                                                                                                                    |
| PRINT / A.Print / On.Stable – Load, Load.Zero | Balance only transmits stable data.<br><i>Load</i> : Print stable value excluding zero<br><i>Load.Zero</i> : Print stable value including zero                                            |
| PRINT / A.Print / interval - (xx) sec         | Balance sends data every (xx) seconds.                                                                                                                                                    |
| PRINT / Auto Print – accept                   | Balance only sends stable accept data in Check mode.                                                                                                                                      |
| PRINT / A.Print – Continuous                  | Balance repeatedly sends data as fast as possible.                                                                                                                                        |
| PRINT / Content                               | On: print relevant content after weighing data<br>Gross – on: G; Net – on: N; Tare – on: T;<br>Info – on: balance will print application mode setting parameters                          |
| PRINT / Layout / Format - (Single, Multi)     | <i>Single</i> : print all data in one line<br><i>Multi</i> : print all data in multiple lines                                                                                             |
| PRINT / Layout / Feed - (Line, 4 Lines, Form) | <i>Line</i> : feed one line after printing<br><i>4 Lines</i> : feed four lines after printing<br><i>Form</i> : feed one page after printing (move to the top of next page after printing) |

**For STX Balances:**

Upon installation, the STX balance will show RS232 icon () in the upper right corner.

| Menu added                                | Function                                                                                                                                               |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication<br> --RS232<br> --Baud Rate | <p>Set the baud rate (bits per second).</p>                          |
| --Transmission                            | <p>Set the data bits, stop bit, and parity.</p>                     |
| --Handshake                               | <p>Set the flow control method.</p>                                |
| --Print Settings                          | <p>For more info, please refer to the STX instruction manual.</p>  |

## CONNECTION

The RS232 Interface Kit cable terminates with a 9 pin Sub-D female connector.

Active pins: Pin 2 = TXD, Pin 3 = RXD, Pin 5 = Ground.

The Interface connector can connect directly to a computer, an OHAUS printer and other printers.

## RS232 OUTPUT

With the interface installed the balance will operate in several ways according to the settings.

### Output String:

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| [weight]              | 11 characters (right justified)                   |
| [space]               | 1 character                                       |
| [unit]                | 5 characters (right justified)                    |
| [space]               | 1 character                                       |
| [stability indicator] | 1 character; "?" when unstable, blank when stable |
| [space]               | 1 character                                       |
| [G,N,T,PT]            | 2 character (right justified)                     |
| [CR]                  | 1 character                                       |
| [LF]                  | 1 character                                       |

Note: The termination characters field contains CRLF, four CRLF, depending on the FEED menu setting

Output examples: (Note: \* and \_ indicate spaces)

```
*****192.21_****g_ _**
*****0.01_****g_?_**
```

A.Print: off; Stable: off  
Stable reading  
unstable reading

```
*****95.0_****g_ _*N
*****169.6_****g_ _*G
*****95.0_****g_ _*N
*****74.6_****g_ _*T
```

A.Print: off; Stable: on  
Content / Result -> on  
Content / Gross -> on  
Content / Net -> on  
Content / Tare -> on

## RS232 INPUT

The following interface commands will be acknowledged by the Balance. They are case sensitive. The balance will return "ES" for invalid commands.

| Command | Function                                                                                                                                                                   |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP      | Immediate Print of displayed weight (stable or unstable).                                                                                                                  |
| P       | Print displayed weight (stable or unstable).                                                                                                                               |
| CP      | Continuous Print.                                                                                                                                                          |
| SP      | Print on Stability.                                                                                                                                                        |
| SLP     | Auto Print stable non-zero displayed weight.                                                                                                                               |
| SLZP    | Auto Print stable non-zero weight and stable zero reading.                                                                                                                 |
| xP      | Interval Print x = Print Interval (1-3600 sec) 0P ends interval Print                                                                                                      |
| 0P      | Turn off Auto Print                                                                                                                                                        |
| H       | <b>H x "text"</b> Enter Header line , where x = line number 1 to 5, "text" = header text up to 24 alphanumeric characters                                                  |
| F       | <b>F x "text"</b> Enter Footer line , where x = line number 1 to 2, "text" = footer text up to 24 alphanumeric characters                                                  |
| Z       | Same as pressing Zero Key                                                                                                                                                  |
| T       | Same as pressing Tare Key.                                                                                                                                                 |
| xT      | Establish a preset Tare value in displayed unit. x = preset tare value. Sending 0T clears tare (if allowed).                                                               |
| PT      | Prints Tare weight stored in memory.                                                                                                                                       |
| PM      | Print current application mode (weighing mode).                                                                                                                            |
| xM      | Set current application mode to x. x depends on application<br>1M: WEIGH, 2M: COUNT, 3M: PERCENT, 4M: CHECK, 5M: DYNAMIC, 6M: TOTAL, 7M: DENSITY, 8M: HOLD, 9M: MOLE       |
| M       | Scroll to the next enabled mode.                                                                                                                                           |
| PU      | Print Current weighing unit: g, kg, lb, oz, etc....                                                                                                                        |
| xU      | Set balance to unit x: g, kg etc.<br>1U: g, 2U: kg, 3U: ct, 4U: N, 5U: oz, 6U: ozt, 7U: dwt, 8U: lb, 9U: lb:oz, 10U: grn, 11U: thk, 12U: tsg, 13U: ttw , 14U: tola, 15U: c |
| U       | Scroll to the next enabled unit.                                                                                                                                           |
| ON      | Brings out of Standby                                                                                                                                                      |
| OFF     | Goes to Standby.                                                                                                                                                           |
| C       | Begin Span Calibration                                                                                                                                                     |
| AC      | Abort Calibration.                                                                                                                                                         |
| PSN     | Print Serial Number.                                                                                                                                                       |
| PV      | Print Version: print name, software revision and LFT ON (if LFT is set ON).                                                                                                |
| x#      | Set Counting APW (x) in grams. (must have APW stored)                                                                                                                      |
| P#      | Print Counting application APW.                                                                                                                                            |
| x%      | Set Percent application reference weight (x) in grams. (must have reference weight stored)                                                                                 |
| P%      | Print Percent application reference weight.                                                                                                                                |
| xCO     | Set Checkweighing Over Limit in grams x.                                                                                                                                   |
| xCU     | Set Checkweighing Under Limit in grams x.                                                                                                                                  |
| PCO     | Print Checkweighing Over Limit.                                                                                                                                            |
| PCU     | Print Checkweighing Under Limit.                                                                                                                                           |
| xMM     | Set Molar Mass in g/mol .                                                                                                                                                  |
| PMM     | Print Molar Mass                                                                                                                                                           |
| xS      | 0 = print unstable data, 1 = print stable only                                                                                                                             |
| xFMT    | 0 = New Print format (default) ; 1 = Scout Pro Print format                                                                                                                |
| xRL     | 0 = disable response; 1 = enable response.                                                                                                                                 |

## ACCESSORIES

For a complete listing of OHAUS printers and other accessories, contact OHAUS Corporation or visit [www.ohaus.com](http://www.ohaus.com).

## COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## DISPOSAL



In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related. For disposal instructions in Europe, refer to [www.OHAUS.com/weee](http://www.OHAUS.com/weee). Thank you for your contribution to environmental protection.