

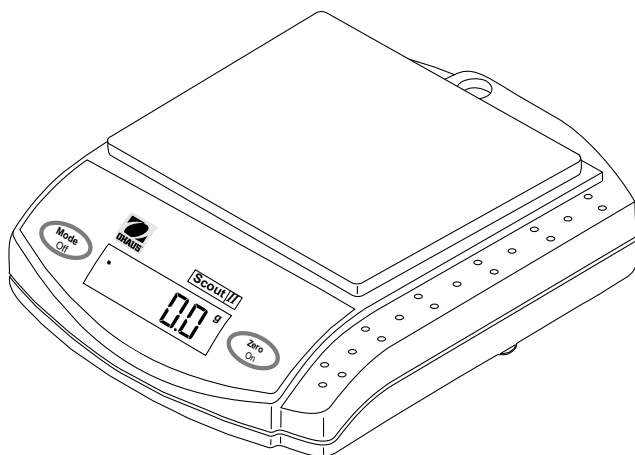


Ohaus Corporation  
29 Hanover Road  
Florham Park NJ  
07932-0900



# Scout II

## Electronic Balances



## NOTICE:

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 the 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.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the department of communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des communications.

Unauthorized changes or modifications to this equipment are not permitted.



This device corresponds to requirements stipulated in 73/23/EEC and features radio interference suppression in compliance with valid EC Regulation 89/336/EEC. Note: The displayed value may be adversely affected under extreme electromagnetic influences, eg. when using a radio unit in the immediate vicinity of the device. Once the interference has been rectified, the product can once again be used for its intended purpose.

Cet appareil correspond aux exigences selon la norme 73/23/CEE et est déparasité conformément à la directive de la CE 89/336/CEE en vigueur. Remarque: Dans des conditions d'influences électromagnétiques extrêmes, par exemple en cas d'exploitation d'un appareil radio à proximité immédiate de l'appareil la valeur d'affichage risque d'être influencée. Une fois que l'influence parasite est terminée, le produit peut être de nouveau utilisé de manière conforme aux prescriptions.

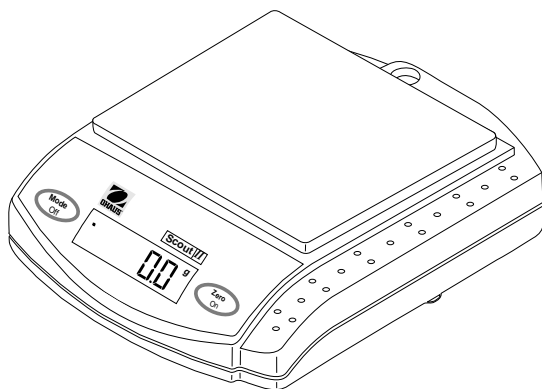
Dieses Gerät entspricht den Anforderungen nach 73/23/EWG und ist funkentstört entsprechend der geltenden EG-Richtlinie 89/336/EWG. Hinweis: Unter extremen elektromagnetischen Einflüssen z.B. bei Betreiben eines Funkgerätes in unmittelbarer Nähe des Gerätes kann eine Beeinflussung des Anzeigewertes verursacht werden. Nach Ende des Störeinflusses ist das Produkt wieder bestimmungsgemäss benutzbar.

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## DESCRIPTION

Scout<sup>II</sup> balances are precision weighing instruments, designed to provide years of service. Features include front panel controls, simplified menu, automatic shut-off, multiple weighing units, parts counting and a weigh below hook. A total of ten models are available with full capacity ranges of 200g to 6000g. Five of the models are available with RS232 communications for operation with external computers or printers. The balance can be operated by a 9 Volt battery or with the AC Adapter supplied. High capacity model is shown below.

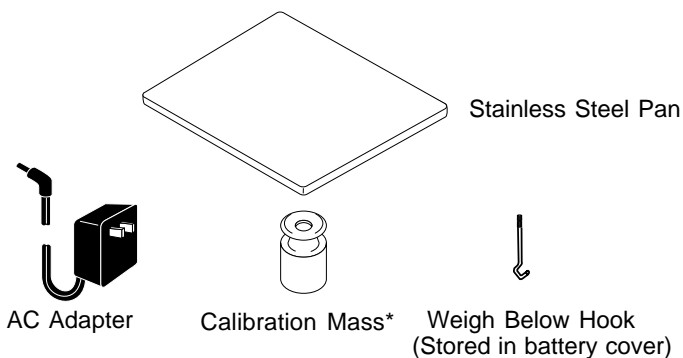



Scout<sup>II</sup> Balance

## UNPACKING

Scout<sup>II</sup> balances are shipped with the following components:

- Stainless steel pan
- Calibration mass\*
- Instruction manual
- Power adapter
- Weigh below hook
- Warranty card



1. Carefully unpack the balance, verify that all items are on hand. Save the  packing material for transporting the balance.

2. Remove the retaining band and cardboard insert from the pan support.

**Calibration masses are not supplied with 1200, 4000 or 6000g units**

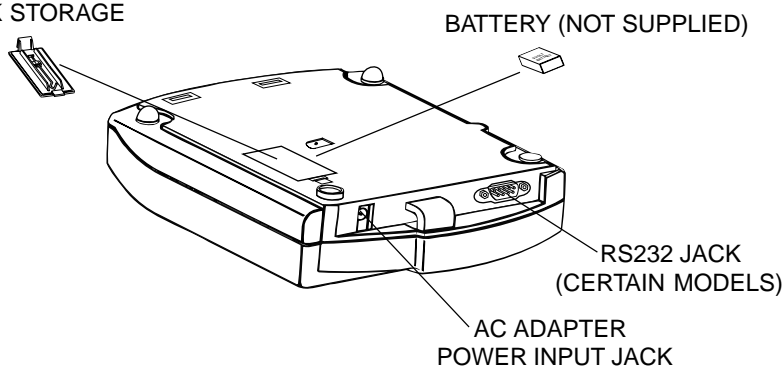
## INSTALLATION

For best performance, the balance should be used in a clean, stable environment. Do not use the balance in environments with excessive drafts, near magnetic fields or equipment that generates magnetic fields, rapid temperature changes, vibrations or corrosive vapors.

### Power

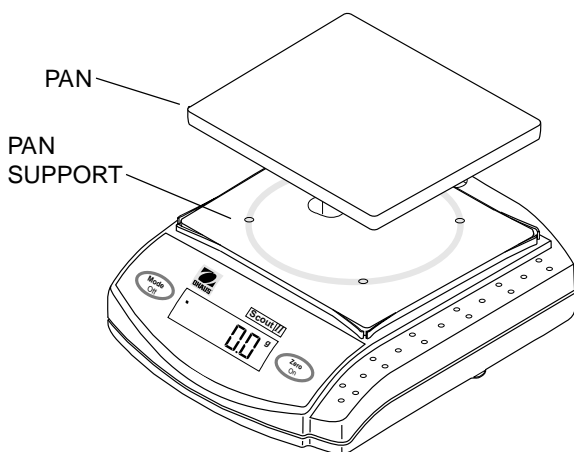
Connect the AC Adapter at the rear of the balance. For portable operation, install a 9 V battery in the battery compartment as shown in the illustration.

#### BATTERY COMPARTMENT AND HOOK STORAGE



### Pan Installation

Place the pan over the pan support as shown in the illustration.



(400g, 600g, 1200g, 6000g Balances Illustrated)

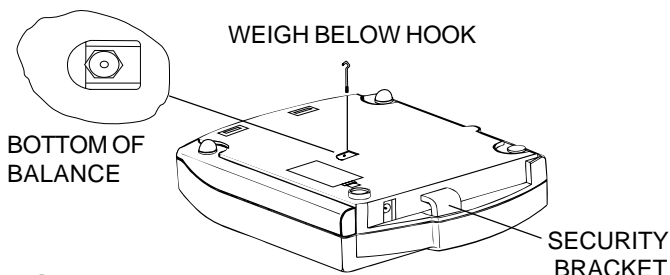
## INSTALLATION (Cont.)

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### Weigh Below Hook

For below balance weighing applications (eg. density determination), the weigh below hook may be installed at the bottom of the balance as shown.

**Do not over tighten the screw**, tighten finger tight. Place the balance on a suitable stand which will allow below balance weighing.



### Security Bracket

A security bracket is provided at the rear of the balance which allows the balance to be secured by the optional cable and lock accessory.

## IMPORTANT INFORMATION

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Scout $II$  balances are sensitive, precision devices and when shipped, occasionally require calibration before they are used. The balances are calibrated at the factory and due to rough handling and vibration during shipping, the balance may display an ERR1 or ERR4 when first turned on.

This does not mean that the balance is defective. We recommend you perform span calibration for an ERR1 indication and linear calibration for ERR4 before you call for service. If the balance does not span calibrate, try linear calibration.

Linear calibration requires two masses to be used. The 200g, 400g and 600g balances are shipped with one mass, you will require a second mass which can be ordered from Ohaus. **1200g, 4000g and 6000g units are not shipped with masses.** Refer to the accessory table at the rear of the manual for the required calibration masses.

Review the Menu and then perform both Span and Linear calibration. Span calibration does not require entering the Menu. Linear calibration (LIN) does require entering the Menu.

In the event the balance fails to operate properly, please call Ohaus Corporation toll-free at (800) 526-0659 for service or parts.

## TURNING THE BALANCE ON

Press **Zero On**. All segments will appear briefly followed by a software revision number and then **00<sup>g</sup>**. Allow 5 minutes warm-up time.



## TURNING THE BALANCE OFF

To turn the balance OFF, press and hold **Mode Off** until the display indicates **OFF**, then release.

## WEIGHING

The balance is shipped from the factory ready to weigh in g, oz, oz t, dwt and lb.

1. Select the desired weighing unit by momentarily pressing **Mode Off**.
2. If it is necessary to rezero the display, momentarily press **Zero On**.
3. Place item(s) to be weighed on the pan and read the weight on the display. The stability indicator \* appears when the reading is stable.

## TARING

When weighing items that must be held in a container, taring subtracts the container's weight from the total weight on the pan. Remember, the weight of the container and the material it holds must not exceed the capacity of the balance.

1. With an empty container on the pan, press **Zero On** to zero the display.
2. As material is added to the container, the net weight is displayed. Tared weight remains in balance memory until **Zero On** is pressed again.
3. If the container is no longer used and is removed from the balance, the display indicates a negative weight which was the container's weight. Press **Zero On** to zero the display.

## MENU DESCRIPTION

The User Menu permits you to activate the Auto Shut-off feature, select weighing units, select parts counting, select printing parameters on RS232 equipped models and perform Linearity calibration and store settings. Bolded items shown in the menu are factory default settings. Each menu item is covered in a separate procedure in this manual, to enter an individual menu item and select it requires alternating between the **Mode Off** and **Zero On** buttons.

To enter the menu, start with the balance OFF, press and hold **Zero On** until **MENU** is displayed, then release it. The first menu item **A. OFF** (automatic shutoff) is displayed. Refer to the individual procedures to select and enable menu items.

### MENU

- A.OFF - Set to On or **Off**.
- UNITS - **g, oz, lb**, oz t, dwt, pc, set each to On or Off.
- PRINT\*-Power - On or **Off**.
  - Baud Rate - 300, 1200, **2400**, 4800, 9600
  - Data Bits - **7** or 8
  - Parity Bit - Odd, Even or **None**
  - Stop Bits - 1 or **2**
  - Auto Print - Continuous, On Stability, or **Off**
  - Stable Data Output Only - On or **Off**
  - End.
- LIN - Performs linearity calibration.
- END - Exit menu and store settings.

*\*RS232 models only.*

## AUTO SHUT-OFF ACTIVATION

When Auto Shut-off is activated, the balance will shut off after three minutes of non use. To activate auto shut-off, proceed as follows:

1. Start with the balance OFF. Press **Zero On** until **MENU** is displayed. When **Zero On** is released, **A. OFF** is displayed.
2. With **A. OFF** displayed, press **Zero On** to view current state (ON or OFF).
3. Press **Mode Off** to change the displayed setting to either **On** or **OFF**.
4. To accept the displayed setting, press **Zero On**. The display returns to **A. OFF**.
5. Press **Mode Off** until **End** is displayed, then press **Zero On** to store and save setting. Balance is now in a weighing mode.



## SPAN CALIBRATION

Scout $II$  balances are calibrated before shipment, however calibration can be affected by changes in location, temperature, or rough handling. Check the balance with the calibration mass supplied. If calibration is required, proceed as follows: **NOTE: 1200g, 4000g and 6000g balances are not supplied with masses**

1. With the balance ON, press and hold **Zero On** until **CAL** is displayed then release it. **-C-** is momentarily displayed followed by the value of the mass which must be placed on the pan.

**Do not disturb the balance while -C- is displayed.**

2. Place the required mass on the pan and momentarily press **Zero On**.
3. When the weight on the pan is displayed with the stability indicator, the balance is calibrated. Remove the mass from the pan. If **Err1** and/or **Err4** is displayed, perform linearity calibration.

## LINEARITY CALIBRATION

1. With the balance OFF, press **Zero On** until **MENU** is displayed.
2. Repeatedly press **Mode Off** until **Lin** is displayed, then press **Zero On**. **-C-** is momentarily displayed followed by the value of the mass which must be placed on the pan.

**Do not disturb the balance while -C- is displayed.**

3. Place the displayed value of the first mass on the pan and momentarily press **Zero On**. **-C-** is displayed, then the value of the second mass to be placed on the pan is displayed.
4. Place the displayed value of the second mass on the pan and momentarily press **Zero On**.
5. When the weight on the pan is displayed with the stability indicator, the balance is calibrated. Remove the mass from the pan.

When Linearity calibration is completed, the balance automatically exits the menu and stores any changes you have made.

## ACTIVATING UNITS

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1. Start with the balance OFF. Press **Zero On** until **MENU** is displayed.
2. Press **Mode Off** until **UnitS** is displayed.
3. With **UnitS** displayed, press **Zero On** to display the grams indicator "g" with its current setting or **On** <sup>g</sup> or **OFF** <sup>g</sup>.
4. To change the displayed setting, press **Mode Off**.
5. To accept the displayed setting, press **Zero On**. The display will advance to the next weighing unit.
6. Repeat steps 4 and 5 for each weighing unit and parts counting. When the last unit has been accepted, the display will again indicate **UnitS**.
7. Repeatedly press **Mode Off** to change to another menu item or to exit, press **Mode Off** until **End** is displayed, then press **Zero On** to store settings.

## PARTS COUNTING

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Parts counting must be turned ON before using this procedure. Refer to Activating Units. The balance will count parts based on the weight of a reference sample of 5, 10, 20 or 50 parts. For optimum results, the parts should be uniform in weight.

1. Start with the balance ON in a weighing mode.
2. Place a container on the pan and press **Zero On** to tare it.
3. Press **Zero On** until **SEtPC** is displayed. When **Zero On** is released, **SEt 5pc**, or **10pc**, **20pc**, **50pc** is displayed depending on what was last entered.
4. Repeatedly press **Mode Off** to change the reference sample to either 5, 10, 20 or 50 parts.
5. Add the selected reference number of parts to the container, then press **Zero On**. The display shows the number of parts added.
6. Add parts to be counted and read the quantity on the balance display.

## PARTS COUNTING (CONT.)

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7. To read the weight of the parts, press **Mode Off** to change to any of the activated weighing units.
  
8. To return to a weighing mode, press **Mode Off** to select a weighing unit, the display indicates the weight of the container as a negative value. Simply press **Zero On** to tare the balance. Taring the balance does not affect the sample weight which is stored and retained as long as the balance remains on.
  
9. To count similar parts, place a container on the pan and press **Zero On**, then place parts in the container. The balance displays the number of parts.

## PRINT MENU

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The Print menu is used to configure and customize the RS232 interface parameters for your requirements on balances equipped with this function. The following table shows the sequence in which submenus appear on the Print Menu. Factory settings are in bold.

### PRINT MENU TABLE

<b>POWER</b>	When set ON, enables the operation of the RS232. Not recommended for battery operation.
<b>Baud Rate</b>	Specifies baud rate of either 300, 1200, <b>2400</b> , 4800, or 9600.
<b>Data Bits</b>	Specifies number of data bits, <b>7</b> or 8.
<b>Parity Bit</b>	Specifies parity type, Odd, Even, or <b>None</b> .
<b>Stop Bits</b>	Specifies the number of stop bits, 1 or <b>2</b> .
<b>Auto Print</b>	Enables either continuous, on stability, off or automatic printing.
<b>Stable Data</b>	Enables/disables printing stable data only feature.
<b>End</b>	Used to exit the Print menu and store your selections.

## SETTING PRINT MENU FUNCTIONS

---

This procedure permits you to set one or all of the RS232 communication parameters on balances equipped with RS232. Each parameter can be entered and set individually.

### ENTERING THE PRINT MENU

1. Start with the balance OFF. Press **Zero On** until **MENU** is displayed.
2. Press **Mode OFF** until **Print** is displayed.
3. With **Print** displayed, press **Zero On** until **PoWr** is displayed. You may now select to change any of the parameters in Power, Baud Rate, Data Bits, Parity Bit, Stop Bits, Auto Print, Stable Data or End which saves all settings.
4. By repeatedly pressing **Mode Off**, you can enter any one of the above print menu items. See following procedures.

### POWER ON/OFF

1. With **PoWr** displayed, press **Zero On**.
2. Press **Mode Off** to change the displayed setting to **On** or **OFF**.
3. To accept the displayed setting, press **Zero On**. The display returns to **PoWr**. To advance to Baud Rate, press **Mode Off**. If you don't want to change any other settings, press **Mode Off** until **End** is displayed, then press **Zero On** to save settings.

### BAUD RATE

1. With **bAud** displayed, press **Zero On** until either **300**, **1200**, **2400**, **4800** or **9600** is displayed.
2. Press **Mode Off** to change the displayed setting to either **300**, **1200**, **2400**, **4800** or **9600** baud.
3. To accept the displayed setting, press **Zero On**. The display returns to **bAud**. To advance to Data Bits, press **Mode Off**. If you don't want to change any other settings, press **Mode Off** until **End** is displayed, then press **Zero On** to save settings.

## SETTING PRINT MENU FUNCTIONS (CONT.)

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### DATA BITS

1. With **dAtA** displayed, press **Zero On** until **-7-** or **-8-** is displayed.
2. Press **Mode Off** to change the displayed setting to either **-7- or -8-**.
3. To accept the displayed setting, press **Zero On**. The display returns to **dAtA**. To advance to Parity Bit, press **Mode Off**. If you don't want to change any other settings, press the **Mode Off** until **End** is displayed, then press **Zero On** to save setting.

### PARITY BIT

1. With **PAr** displayed, press **Zero On** until **Odd**, **EvEn** or **nonE** is displayed.
2. Press **Mode Off** to change the displayed setting to either **Odd**, **EvEn** or **nonE**.
3. To accept the displayed setting, press **Zero On**. The display returns to **PAr**. To advance to Stop Bits, press **Mode Off**. If you don't want to change any other settings, press the **Mode Off** until **End** is displayed, then press **Zero On** to save setting.

### STOP BITS

1. With **StoP** displayed, press **Zero On** until either **-1-** or **-2-** is displayed.
2. Press **Mode Off** to change the displayed setting to either **-1-** or **-2-**.
3. To accept the displayed setting, press **Zero On**. The display returns to **StoP**. To advance to Auto Print, press **Mode Off**. If you don't want to change any other settings, press the **Mode Off** until **End** is displayed, then press **Zero On** to save setting.

### AUTO PRINT

1. With **APrnt** displayed, press **Zero On** until **OnStb**, **OFF** or **Cont** is displayed.
2. Press **Mode Off** to change the displayed setting to either , **OnStb**, **OFF** or **Cont**.
3. To accept the displayed setting, press **Zero On**. The display returns to **APrnt**. To advance to Stable Data, press **Mode Off**. If you don't want to change any other settings, press the **Mode Off** until **End** is displayed, then press **Zero On** to save setting.

## SETTING PRINT MENU FUNCTIONS (CONT.)

### STABLE DATA OUTPUT ONLY

1. With **PrStb** displayed, press **Zero On** until **On** is displayed.
2. Press **Mode Off** to change the displayed setting to either **On** or **OFF**.
3. To accept the displayed setting, press **Zero On**. The display returns to **PrStb**. If you don't want to change any other settings, press the **Mode Off** until **End** is displayed, then press **Zero On** to save settings.

## PRINTING

Models of Scout<sup>II</sup> balances equipped with an RS232 interface for communication can print the balance display results by pressing **Zero On** until **-P-** is displayed then release.

## RS232 INTERFACE

Certain models of Scout<sup>II</sup> balances are equipped with a bi-directional RS232 compatible interface for communication with printers and computers. When the balance is connected directly to a printer, displayed data can be output at any time by using the Auto Print feature.

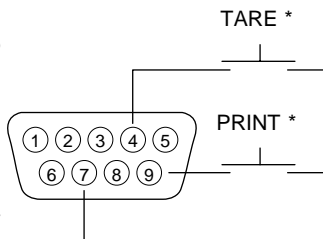
**NOTE:** The AC Adapter is recommended to power the balance when the RS232 interface is used.

Connecting the balance to a computer enables you to operate the balance from the computer, as well as receive data such as displayed weight and weighing mode. The following sections describe the hardware and output signal formats provided with the balance.

### Hardware

On the rear of the balance, a 9-pin subminiature "D" connector is provided for interfacing to other devices. The pinout and pin connections are shown in the adjacent illustration.

The balance will not output any data unless pin 5 (CTS) is held in an ON state (+3 to +15 V dc). Interfaces not utilizing the CTS handshake may tie pin 5 to pin 6 to defeat it.



# RS232 INTERFACE

## RS232 Commands

All communication is accomplished using standard ASCII format. Only the characters shown in the following table are acknowledged by the balance. Any other commands, control characters or spaces are ignored. Commands sent to the balance must be terminated with a carriage return (CR) or carriage return-line line feed (CRLF). For example, a tare command should appear as shown in the adjacent diagram. Data output by the balance is always terminated with a carriage return - line feed (CRLF).

1	N/C
2	Data Out (TXD)
3	Data In (RXD)
4*	Tare (External signal)
5	Clear To Send (CTS)
6	Data Terminal Ready (DTR)
7	Ground
8	Request To Send (RTS)
9*	Print (External signal)

\* External PRINT and/or TARE switches may be installed as shown in the diagram. Momentary contact switches must be used.

### TARE COMMAND


Field:	T	CR	LF
Length:	1	1	1

## Output Formats

Data output can be initiated in one of two ways: 1) Using the Auto Print feature; 2) Sending a print command ("P") from a computer.

The output format is illustrated in the RS232 command table which follows.

**RS232 COMMAND TABLE**

<b>?</b>	Print current mode.
<b>nnnnA</b>	Set Auto Print Feature to "nnnn" nnnn=0           turns feature OFF nnnn=S           output on stability nnnn=C           output is continuous nnnn= 1-3600   sets auto print interval
<b>C</b>	Begin span calibration
<b>L</b>	Begin linearity calibration.
<b>xM</b>	Place balance in unit "x" (x=0 gram, x=1 ounces, x=2 troy ounces, x=3 pennyweights, x=4 parts counting, x=5 pounds)
<b>T</b>	Same effect as pressing Zero On
<b>V</b>	Print software version
<b>EscR</b>	Resets setup and print menus to factory default. Resets RS232 configuration.
<b>P</b>	Print display data. 
<b>LE</b>	Shows last error code. Response: Err: Error Number
<b>xS</b>	Print stable data only. Where x=0 for OFF, x=1 for ON

## RS232 INTERFACE (Cont.)

### Error Codes

Err 0	Invalid checksum data
Err 1	Overload (>103% capacity) or Underload
Err 4	Incorrect calibration weight
Err 5	Displayed value >99999 (could occur in parts counting)
Err 6	Parts counting error - sample weighs <1d. balance shows error then exits parts counting.
Err 8	RS232 buffer is full
Err 9	Internal data error. Return balance for servicing.

### CARE AND MAINTENANCE

To keep the balance operating properly, keep the housing and platform clean. If necessary, a cloth dampened with a mild detergent may be used. Check under the sub platform for debris and remove. Keep calibration masses in a safe dry place. Unplug the AC Adapter when not in use. For long term storage, remove the battery.

### TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
No Display.	1.Power Adapter not connected. 2.Battery is dead.	1.Connect AC Adapter. 2. Replace battery.
<b>BAT</b> Indicator is on.	Battery is weak.	Replace battery.
Incorrect weight reading.	1. Balance out of calibration. 2. Balance was not rezeroed before weighing.	1. Calibrate the balance. 2. Press <b>Zero On</b> with no weight on the pan, then weigh item.
Calibration procedures do not work.	Incorrect calibration masses being used.	Use correct masses. <u>See error codes note.</u>
Unable to display weight in a particular weighing unit.	Weighing unit not activated in menu.	Use Units menu to set desired units ON (see menu).
Balance won't store selections made in menu.	END selection was not used to exit menu.	You must use END to exit menu and save selections.
Balance readings unstable.	Balance location may have wind from air conditioning vents or vibration from other appliances nearby affecting operation.	Either move or shield balance from external air currents or vibration.
Error code is displayed.	Various internal and external problems may be the cause.	Review error code table and take appropriate action.



## PARTS INFORMATION

If you require replacement parts or would like to purchase accessories, please call Ohaus Corporation toll-free at (800) 526-0659. An Ohaus Product Parts Specialist will be available to help you.


## REPLACEMENT PARTS

	<b>Part No.</b>
AC Adapters:	
100/120 V ac US Plug	90524-66
220 V ac Euro Plug	90524-63
240 V ac UK Plug	90524-64
240 V ac Australian Plug	90524-65
Pan for 200g Scout//, 4.0" (10cm) dia.	77064-00
Pan for 400g and 600g Scout//, 5 x 5.75" (12.7cm x 14.6 cm)	300007-010
Weigh Below Hook	5227-04
200g Calibration Mass (200g and 400g Scout//)	51025-06
300g Calibration Mass (600g Scout//)	51035-05

## ACCESSORIES

	<b>Part No.</b>
Calibration Masses:	
100g (200g Scout//)	51015-05
200g (400g Scout//)	51025-06
300g (600g Scout//)	51035-05
500g (1200g Scout//)	51055-06
1000g (1200g Scout//)	51016-06
2000g (6000g Scout//) (2 required)	51026-02
Security Device	76288-01
Hard Shell Carrying Case	77256-01
Impact Printer	AS142
Impact Printer Paper 5 pack	78204-01
Cable for AS142 Printer	AS017-06
Cable, PC 25 Pin	AS017-02
Cable, PC 9 Pin	AS017-09
Cable, for Apple®, IIGS/Macintosh	AS017-10
Scoops: Aluminum,	
3.62 x 4.50 x 1.0"/9.20 x 11.34 x 2.54 cm	4590-10
Black anodized, aluminum,	
3.62 x 4.50 x 1.0"/9.20 x 11.34 x 2.54 cm	4590-30
Aluminum,	
1.5 x 2.00 x 0.43"/3.81 x 5.08 x 1.11 cm	5076-00
Gold anodized aluminum,	
2.25 x 3.00 x 0.75"/5.71 x 7.62 x 1.90 cm	5077-00

## SPECIFICATIONS

Capacity (g)	200	400	600	1200	6000
Readability (g)	0.01	0.1	0.1	0.1	1
Weighing modes	g, oz, oz t, dwt, pc			g, oz, ozt, dwt, lb, pc	
Repeatability (std. dev.) (g)	0.01	0.1	0.1	0.1	1
Linearity (g)	±0.01	±0.1	±0.1	±0.1	±1
Tare range	To capacity by subtraction				
Over range capacity	103%				
Stabilization time (seconds)	3				
Sensitivity drift (%/°C)	±0.005	±0.02	±0.02	±0.009	±0.2
Zero point drift (g/°C)	±0.03	±0.5	±0.5	±0.2	±5.0
Operating temperature	50° to 104° F/10° to 40° C				
Operating humidity range	10% to 85% RH				
Power requirements	AC Adapter (supplied with balance) 100, 120, 220 or 240 V ac, 50/60 Hz or one 9 V battery (not included)				
 Display (in/cm)	LCD (0.7/1.8 high)				
Pan size (W x D) (in/cm)	4/10.2 dia	5 x 5.75/12.7x14.6			
Dimensions (W x H X D) (in/cm)	6.75 x 2.4 x 8.25/17.1 x 6.2 x 21				
Net weight (lb/kg)	1.5/0.7	1.8/0.8	1.8/0.8	1.8/0.8	1.8/0.8
Shipping weight (lb/kg)	3.2/1.5	3.5/1.6	3.7/1.7	3.7/1.7	3.7/1.7
<b>Item No. without RS232</b>	<b>SC2020</b>	<b>SC4010</b>	<b>SC6010</b>	<b>SCA210</b>	<b>SCF0A0</b>
<b>Item No. with RS232</b>	<b>SR2020</b>	<b>SR4010</b>	<b>SR6010</b>	<b>SRA210</b>	<b>SRF0A0</b>

## CONVERSION FACTORS FOR UNITS OF MASS

The following conversion table of weights and measures of mass is provided for your work and study when using the balance.

TO	To Convert from <b>GRAMS</b>	Multiply by
Grains . . . . .		15.432 36
Carats . . . . .		5.000
Pennyweights . . . . .		0.643 014 9
Avoirdupois Drams . . . . .		0.564 383 4
Avoirdupois Ounces . . . . .		0.035 273 96
Troy Ounces . . . . .		0.032 150 75
Troy Pounds . . . . .		0.002 679 23
Avoirdupois Pounds . . . . .		0.002 204 62
Milligrams . . . . .		<u>1000</u>
Kilograms . . . . .		<u>0.001</u>

## SPECIFICATIONS

Capacity (g)	400	4000	10	500
Readability (g)	0.01	0.1	0.002	0.1
Weighing modes	g, oz, oz t, dwt, pc	g, oz, oz t, dwt, pc, lb	ct, g, oz t, dwt, gn, pc taels (3), oz	g, oz, oz t, dwt, ct, pc
Repeatability (std. dev.) (g)	0.01	0.1	0.002	0.1
Linearity (g)	±0.01	±0.1	±0.002	±0.1
Tare range	To capacity by subtraction			
Over range capacity	103%			
Stabilization time (seconds)	3			
Sensitivity drift (%/°C)	±0.003	±0.003	±0.005	±0.02
Zero point drift (g/°C)	±0.02	±0.2	±0.004	±0.5
Operating temperature	50° to 104° F/10° to 40° C			
Operating humidity range	10% to 85% RH			
Power requirements	AC Adapter (supplied with balance) 100, 120, 220 or 240 V ac, 50/60 Hz or one 9 V battery (not included)			
Display (in/cm)	LCD (0.7/1.8 high)			
Pan size (W x D) (in/cm)	4/10.2 dia.	5 x 5.75/ 12.7x14.6	3/7.6	5 x 5.75/ 12.7x14.6
Dimensions (W x H X D) (in/cm)	6.75 x 2.4 x 8.25/17.1 x 6.2 x 21			
Net weight (lb/kg)	1.5/0.7	1.8/0.8		
Shipping weight (lb/kg)	3.2/1.5	3.5/1.6		
<b>Item No. without RS232</b>	<b>SC4020</b>	<b>SCD010</b>	<b>JS10</b>	<b>JS500</b>
<b>Item No. with RS232</b>	<b>SR4020</b>	<b>SRD010</b>	<b>N/A</b>	<b>N/A</b>

## **LIMITED WARRANTY**

Ohaus products are warranted against defects in materials and workmanship from the date of delivery through the duration of the warranty period. During the warranty period Ohaus will repair, or, at its option, replace any component(s) that proves to be defective at no charge, provided that the product is returned, freight prepaid, to Ohaus.

This warranty does not apply if the product has been damaged by accident or misuse, exposed to radioactive or corrosive materials, has foreign material penetrating to the inside of the product, or as a result of service or modification by other than Ohaus. In lieu of a properly returned warranty registration card, the warranty period shall begin on the date of shipment to the authorized dealer. No other express or implied warranty is given by Ohaus Corporation. Ohaus Corporation shall not be liable for any consequential damages.

As warranty legislation differs from state to state and country to country, please contact Ohaus or your local Ohaus dealer for further details.



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