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PRECISION *Standard*
Electronic Balances
JR Series

Instruction Manual

NOTE: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS A 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 NUMERIQUE RESPECTE LES LIMITES DE BRUITS RADIOELECTRIQUES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE A PRESCRITES DANS LA NORME SUR LE MATERIEL BROUILLEUR : “APPAREILS NUMERIQUES”, NMB-003 EDICTEE PAR LE MINISTRE DES COMMUNICATIONS.

Unauthorized changes or modifications to this equipment are not permitted.

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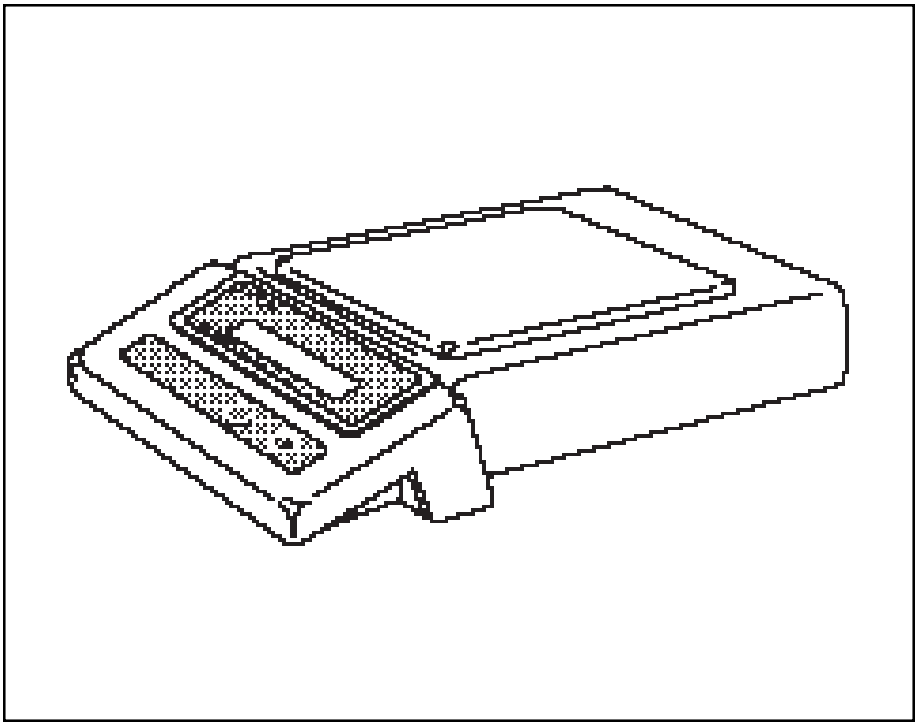
INTRODUCTION

This manual covers installation, operation and troubleshooting for the Ohaus Precision Standard balances, Models JR120, JR200, JR400, JR400D, JR600, JR2K, JR4K and JR4KD. To insure proper operation of the balance, please read this manual completely.

DESCRIPTION

The Ohaus Precision Standard series balances are precision weighing instruments, designed to provide years of service with virtually no maintenance. The Precision Standard series is constructed using a die-cast aluminum base finished with a durable epoxy powder paint which is resistant to commonly used acids, contains a one piece solid-state precision electronics PC board, a seven digit LCD display which is 0.6 inches in height. All Precision Standard series balances are factory set to measure in grams. Each balance operates through a series of menus which enable precise calibration and linearity along with various other parameters which enhances operation. A built in lock switch prevents preset settings from being changed. To prevent measurements from being affected by air currents, a draft shield is used on Models JR120, JR200 and JR400D balances. Power is supplied through an AC adapter which is available in five voltages for world-wide usage. Accessories include: an RS232 interface kit which allows printing of results through an external computer, an RS232 Interface cable with a print switch, weigh below hook, security device and calibration weights.



PRECISION *Standard* Balance

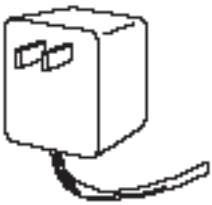
UNPACKING

Your Precision Standard balance was shipped with the following items:

- a pan
- a pan support
- an AC power adapter
- a draft shield (JR120, JR200 and JR400D only) includes draft shield and snap clamp
- this instruction manual
- your warranty card

It is recommended to save the carton and packing material for storing , transporting the balance or returning it for service.

Precision Standard Balance



AC Adapter

Round Pan

Pan Support

(Round pan and support for Models JR120, JR200, JR400, JR600, and JR400D)

Square Pan

Pan Support

(Square pan and support for Models JR2K, JR4K and JR4KD)

INSTALLATION

Environment

The balance should always be used in an environment which is free from excessive air currents, corrosives, vibration, and temperature or humidity extremes. These factors will affect displayed weight readings.

DO NOT install the balance:

- Next to open windows or doors causing drafts or rapid temperature changes.
- Near air conditioning or heat vents.
- Near vibrating, rotating or reciprocating equipment.
- Near magnetic fields or equipment that generates magnetic fields.
- On an unlevel work surface.

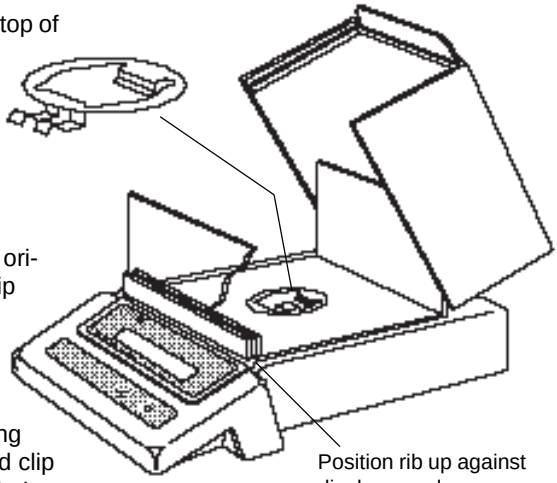
Draft Shield (JR120, JR200 and JR400D)

To install the draft shield:

1. Position the draft shield on top of the balance as shown. Make sure the rib at the front of the draft shield base butts up against the raised lip of the display panel.

2. The snap clamp should be oriented so that the double clip is toward the front of the balance.

   Insert the double clip of the snap clamp into the opening in the draft shield base, and clip the draft shield base to the balance. Press the rear clip of the snap clamp into place.

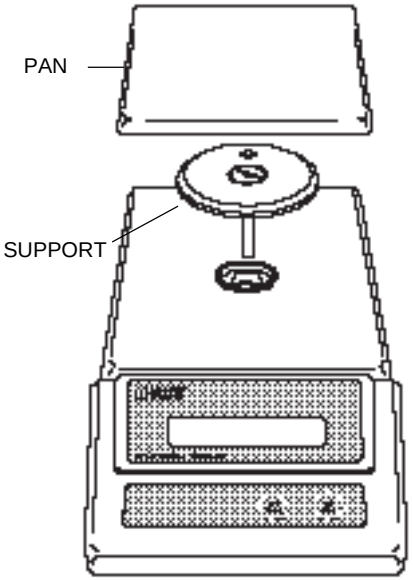


Pan and Pan Support

Square Pan

Insert the pan support into the hole in the weighing mechanism as shown in the illustration. Make sure the hole in the pan support faces the rear of the balance. Once installed, the pan support should not rotate.

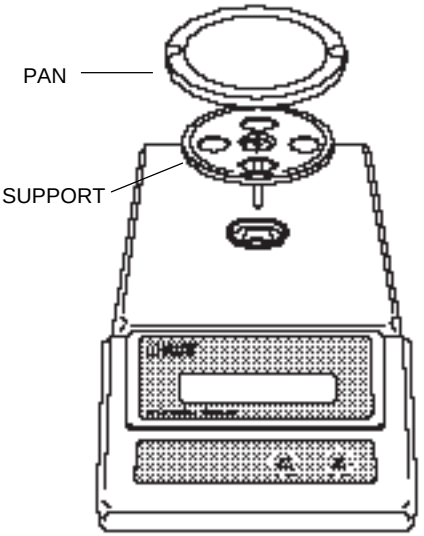
The pan has a guide pin which protrudes from the bottom. Place the pan on the support making sure the guide pin is inserted in the hole in the pan support.



Round Pan

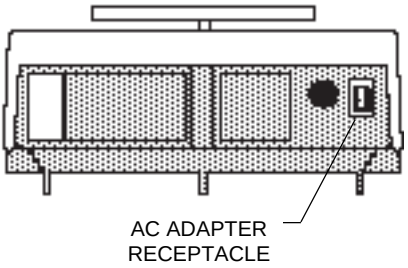
Insert the pan support into the hole in the weighing mechanism.

Place the pan on the support.



AC Adapter

Plug the molded connector of the adapter into the receptacle at the rear of the balance. Plug the adapter into a convenient AC outlet. When power is applied to the balance, it will begin a self test cycle. During this time, the display will count down from 10 and display the word CHEC.



OPERATION

Turning the Balance ON

With no load on the pan, turn the balance ON by pressing the ON TARE button. When first switched ON, all segments of the display should be on as shown in the illustration.

This display check will be displayed briefly, then the model number of the balance, followed by a short countdown. The display will momentarily blank and then indicate zero. All of the displays shown at the right only appear during initial power-up.

Stabilization

Before initally using the balance, allow time for it to adjust to changes in environment. The balance need only be plugged in to warm up. Recommended warm up period is thirty minutes.

Auto Range Models (JR400D and JR4KD)

Auto range balances offer both a fine range (lower capacity/higher readability) and a coarse range (higher capacity/lower readability). When first turned on, the balance is in the fine range. It remains in this range until the weight on the pan exceeds the fine range capacity. When weight on the pan is greater than the fine range capacity, the balance switches to the coarse range.

If weight on the pan falls back to within the fine range capacity, coarse range readability remains in effect until you tare the balance with no weight on the pan.

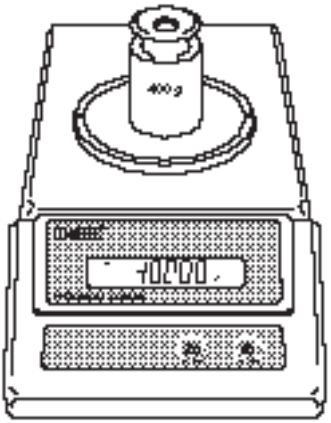
Checking Calibration

Before using the balance, calibration should be checked. The balance has been calibrated before shipment, however, it could be influenced by factors such as:

- Variations in the earths gravitational field at different latitudes of the world.
- Rough handling.
- Changes in work location.
- Height above sea level.

To check the balance's calibration, place a known mass on the center of the pan and read the displayed weight.

If the displayed weight differs from the known weight by more than acceptable limits, refer to the Calibration Menu and the Specifications at the rear of the manual.

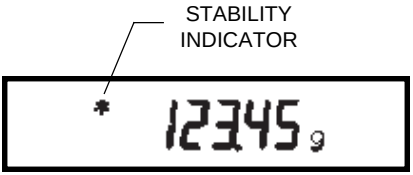


Weighing

1. Press ON TARE to rezero the display.

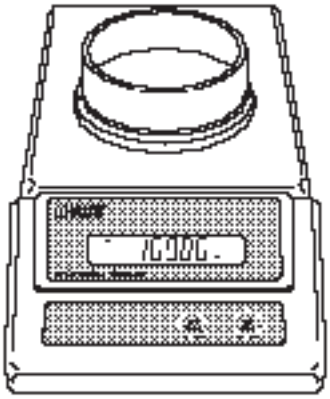
2. Place the object(s) or material to be weighed on the pan.

3. Wait for the stability indicator to appear before reading the weight.



Taring

When weighing material or objects that must be held in a container, taring enables you to store the container weight in the balance's memory, separate from the weight of the material in the container.

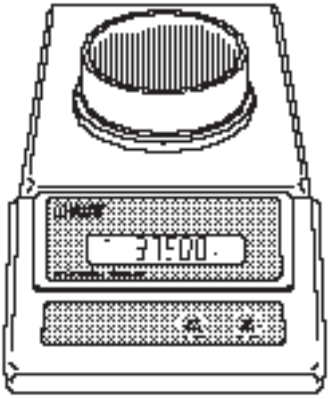


1. Place an empty container on the pan. Its weight will be displayed.

2. Press ON TARE .

   The display will show zero and the container's weight will be stored in memory.

3. Add material to the container. As material is added, its net weight will be displayed.



4. Removing the container and material from the pan will cause the balance to display the container's weight as a negative number.

Tared weight remains in balance memory until ON TARE is pressed again.

USING MENUS TO CONFIGURE THE BALANCE

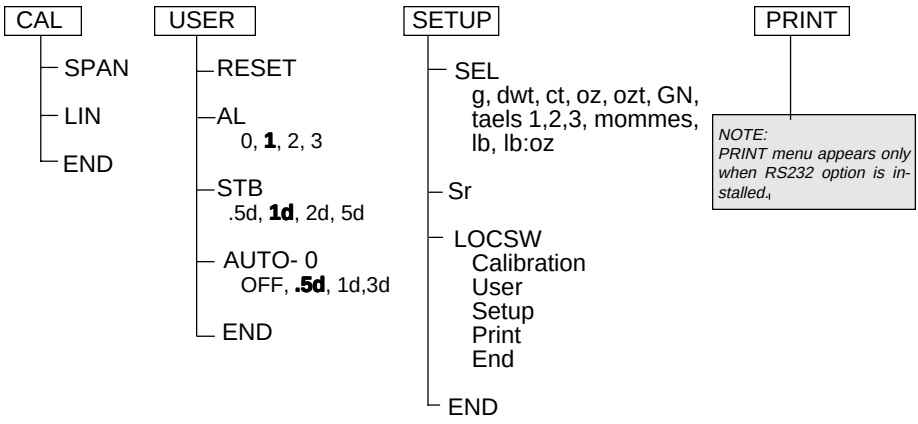
Precision Standard balances contain four display menus which enable you to calibrate and configure the balance for your specific operating requirements.

Calibration Menu: Used to calibrate the balance for span or linearity.

User Menu: Used to adapt balance to environmental condtions.

Setup Menu: Used to enable, disable or customize different balance features.

Print Menu: Used to configure the RS232 interface.



To access a menu, press and hold ON TARE until desired menu appears, then release it.

Original factory default settings are shown in boldface type.

Use these buttons to step through menus and select submenus:

OFF MODE next selection ON TARE select displayed item

CALIBRATION MENU

Precision Standard balances can be calibrated in two ways: Span calibration or Linearity calibration. Span calibration resets the balance's weighing range using two weight values: zero and a weight value at or near the balance's capacity. Linearity calibration minimizes deviation between actual and displayed weights within the balance's weighing range. Three weight values are used: zero, a weight value within the balances weighing range, and a weight value at or near the balance's specified capacity. The following table shows the sequence in which submenus appear on the Calibration menu.

CALIBRATION MENU TABLE

SPAn	Selects span calibration.
L in	Selects linearity calibration.
End	Used to exit the Calibration menu.

Calibration Menu Protection

The calibration menu may be locked out to prevent unauthorized personnel from changing calibration. To lock out the calibration menu, refer to section titled Menu Lock-Out Protection.

NOTE: If calibration has been locked out, you will not be able to access it.

Calibration Weights

Before beginning calibration, make sure weights are on hand. If you begin calibration and realize weights are not available, either turn the balance off, or go through the procedure without weights. The balance will use previously stored calibration data. Calibration should be performed as necessary to ensure accurate weighing. Weights required to perform the procedures are listed in the adjacent table.

CALIBRATION WEIGHTS

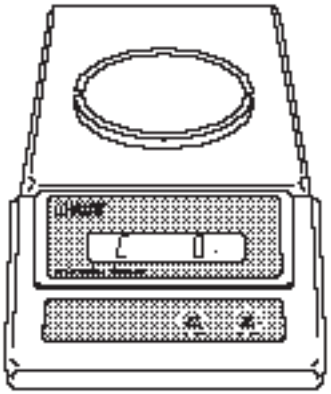
MODEL	LINEARITY WEIGHTS	SPAN ONLY WEIGHT
JR120	50g, 100g	100g
JR200	100g, 200g	200g
JR400	200g, 400g	400g
JR400D	50g, 400g	400g
JR600	200g, 500g	500g
JR4K	2kg, 4kg	4kg
JR2K	1kg, 2kg	2kg
JR4KD	500g, 4kg	4kg

It is recommended that masses must meet or exceed ASTM Class 1 Tolerance. Calibration masses are available as accessories.

Span Calibration

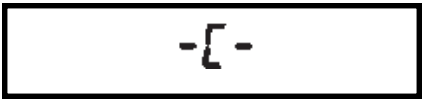
1. Press and hold ON TARE until CAL is displayed, then release it. Balance will display SPAN.

2. Press ON TARE .



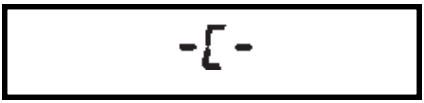
3. When ON TARE is released, C 0g will be displayed indicating that no weight should be on the pan.

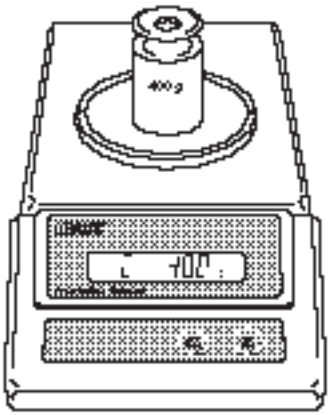
4. Press ON TARE . The display will show -C- followed by the value of the weight which must be placed on the pan.



NOTE: Do not disturb the balance when -C- is displayed. Disturbances will result in improper calibration.

5. Place the required weight on the pan and press ON TARE . The display will show -C- while the balance recalibrates.





6. When the weight on the pan is displayed along with the current unit indicator, the balance is recalibrated.

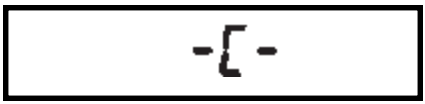
Linearity Calibration

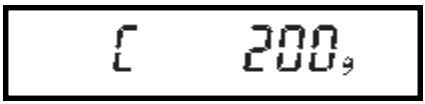
1. Turn Balance on. After zero reading, press and hold ON TARE until CAL is displayed, then release. Balance will display SPAN.

2. Press OFF MODE and the display will show LIN.

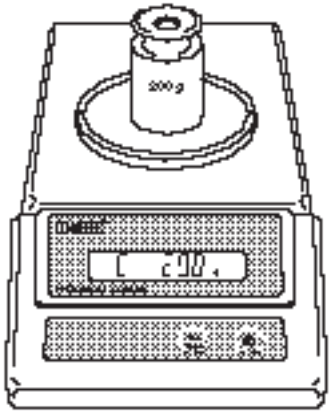
3. Press ON TARE to start the Linearity Calibration Procedure. When the ON TARE is released, C 0g will be displayed, indicating that no weight should be in the pan.

4. Press ON TARE. The display will show -C- followed by the value of the weight which must be placed on the pan.

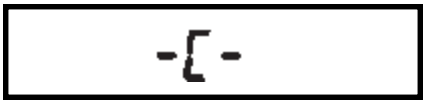




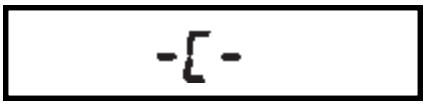
5. Place the required weight on the pan.

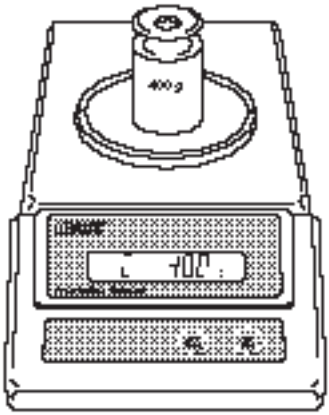


6. Press ON TARE . The display will show -C- momentarily, then C followed by the next weight to be placed on the pan. Do not disturb the balance when -C- is displayed. Disturbances will result in improper calibration.



7. Place the required weight on the pan, then press ON TARE . The display will show -C- while the balance recalibrates. When the weight on the pan is displayed along with the current indicator, the balance is recalibrated.





End

If you have entered the Calibration menu and do not wish to calibrate the balance, use END to return to normal weighing operations.

Repeately press OFF MODE until End is displayed.

Press ON TARE, when released, the balance will returned to normal weighing operations.

USER MENU

The User menu is used to adapt the balance to environmental conditions. It contains submenus which enable you to reset the balance to factory default settings or to select specific range settings. Access to the User menu can be disabled using the Lock Out switch. The following table shows the sequence in which submenus appear on the User menu.

USER MENU TABLE

rESEt	Sets all submenus below to original factory default settings. Reset does not appear if menu has been locked out.
AL	Specifies the averaging level.
Stb	Specifies the desired stability range.
Auto-0	Sets Auto-Zero threshold.
End	Used to exit the Setup menu and store your selections.

User Menu Protection

The User menu may be locked out to prevent unauthorized personnel from changing the settings. To lock out the User menu, refer to the section titled Menu Lock-Out Protection.

NOTE: If -SAFE- is displayed, the User menu has been locked out. Settings may be viewed but not changed. See the Menu Lock-Out Protection section to enable it for making changes.

To access the User menu, press and hold ON TARE until USER is displayed, then release it.

To access a submenu:

1. Repeatedly press OFF MODE until the desired submenu is displayed.

2. Press ON TARE to select the displayed submenu.

NOTE: You must use END to store any changes you make to the User menu.

The following sections describe each item on the User menu in detail.

Reset to Factory Defaults

This submenu enables you to reset all User menu selections to the factory default settings outlined in the adjacent table.

To reset to factory defaults:

1. Access the RESET submenu.

2. Press OFF MODE to change the setting.

   Select YES to reset settings or, no to leave current settings.

   Press ON TARE to accept the displayed setting.

USER MENU FACTORY DEFAULTS

Averaging Level	AL 1
Stability Range	1d
Auto-Zero Tracking	.5d

Averaging Level

Averaging level compensates for vibration or excessive air currents. During operation, the balance continually takes weight readings from the weighing cell. Successive readings are then digitally processed to achieve a stabilized display. Use this submenu to specify how much processing you need to obtain stable results.

NOTE: Averaging level does not affect balance accuracy.

Select one of four averaging levels using the adjacent table as a guide.

To view or change the averaging level:

1. Access the AL submenu to display the current setting.

2. Press OFF MODE to change the setting.

   Press ON TARE to accept the displayed setting.

When ON TARE is released, AL will be displayed again and the Setup menu will be returned.

AVERAGING LEVEL	
AL	0 reduced stability, fastest stabilization time
AL	**1 normal stability, normal stabilization time**
AL	2 more stability, slow stabilization time
AL	3 maximum stability, slowest stabilization time

Stability Range

The stability range specifies how much a displayed weight may change while the stability indicator remains ON. When displayed weight changes beyond the allowable range, the stability indicator turns OFF indicating an unstable condition. Precision Standard balances permit you to select one of four stability ranges (in divisions) as shown in the table.

STABILITY RANGE	
.5d	smallest range: stability indicator is ON only when displayed weight is within .5 divisions
1d	**reduced range**
2d	normal range
5d	largest range: stability indicator is ON even though displayed weight changes slightly

When the RS232 interface is configured to print stable data only, the stability range also governs data output. Displayed data will only be output if it is within the selected stability range.

To view or change the stability range:

1. Access the Stb submenu to display the current setting.

2. Press OFF MODE to change the setting.

   Press ON TARE to accept the displayed setting.

When ON TARE is released, Stb will be displayed again and the Setup menu will be returned.

Auto-Zero

Auto-Zero minimizes the effects of temperature changes and shift on the zero reading. By defining a threshold level in divisions, the balance maintains the zero display until the threshold is exceeded. This submenu permits you to select one of three threshold levels, or turn the feature OFF. Auto-Zero only functions when the display reads zero.

To view or change the Auto-Zero setting:

1. Access the Auto-0 submenu to display the current setting.

2. Press OFF MODE to change the setting.

   Press ON TARE to accept the displayed setting.

   When ON TARE is released, Auto-0 will be displayed again and the User menu will be returned.

AUTO ZERO	
OFF	turns Auto-Zero OFF
.5d	**sets threshold to .5 divisions**
1d	sets threshold to 1 division
3d	sets threshold to 3 divisions

End

You must use END to exit the User menu. **Changes you make in the User menu are only stored in memory if you use END.**

To exit the User menu and store your settings, press ON TARE when End is displayed.

When ON TARE is released, the balance will be returned to normal weighing operations.

SETUP MENU

The Setup menu enables you to retain program balance parameters once they have been set. Access to the Setup menu can be disabled using the Lock Out switch. The following table shows the sequence in which submenus appear on the Setup menu.

SETUP MENU TABLE

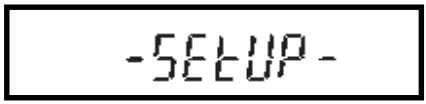
SEL	Enables the selection of weighing units.
Sr	Indicates the software version of the balance.
LOCSUU	Enables individual or all menus to be locked out.
End	Used to exit the Setup menu and store your selections.

Setup Menu Protection

The Setup menu may be locked-out to prevent unauthorized personnel from changing settings. To lock out the Setup menu, refer to the section titled Menu Lock-Out Protection.

NOTE: If -SAFE- is displayed, the Setup menu has been locked out. Settings may be viewed but not changed. See the Menu Lock-Out Protection section to enable it for making changes.

To access the Setup menu, press and hold ON TARE until SETUP is displayed, then release it.



To access a submenu:

1. Repeatedly press OFF MODE until the desired submenu is displayed.

2. Press ON TARE to select the displayed submenu.

NOTE: You must use END to store any changes you make to the Setup menu.

The following sections describe each item on the Setup menu in detail.

Unit Selection

Unit selection permits you to specify which weighing units will be enabled for use during operation. The adjacent table lists the units available.

To enable or disable the various weighing units, use the following procedure:

Weighing Units	
g grams	: mommes
dwt pennyweight	ct carats
oz t troy ounces	t taels
lb	lb:oz
gn	oz

1. Access the SEL menu.
2. The display will show the grams unit indicator (g) along with the current status (ON/OFF).
3. Press OFF MODE to change the status.
4. Press ON TARE to accept the displayed status. When ON TARE is released, the display will show the next unit indicator with the current status.
5. Set each unit ON or OFF as in step 3.

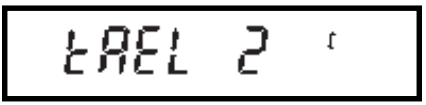
Taels

If taels are enabled, you will be required to choose one of three different taels: Hong Kong, Singapore, or Taiwan.

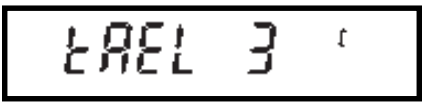
When the display shows TAEL 1, press OFF MODE to change to another tael, press ON TARE to accept the displayed tael.

When the last weighing unit has been set, the display will show SEL again and the Setup menu will be returned.

(Hong Kong)



(Singapore)



(Taiwan)

Lockswitch

Lockswitch enables you to lock out one or more menu selections. Each menu can be individually locked on or off after all functions have been set. The Calibration, User, and Setup menus can be individually locked on or off by selecting the appropriate menu and then locked by the switch located under the right hand side of the control panel. Before performing the lock out procedure, decide which functions of the balance are to be locked on or off.

1. Access the LOCSW submenu. When ON TARE is released, the LOCSW submenu is displayed.

2. To access one or more menus, press ON TARE to select the calibration menu, -CAL- is displayed.

   NOTE: Pressing OFF MODE changes the selection to the other menus.

3. To select a YES or NO, press OFF MODE.

   NOTE: The OFF MODE switch acts as a toggle and can select either YES or NO.

4. To confirm your selection, press ON TARE again. The display indicates the last menu you were in.

5. To lock out the other menus, press OFF MODE and repeat the procedure in steps 3 and 4.

End

You must use END to exit the Setup menu. **Changes you make in the Setup menu are only stored in memory if you use END.**

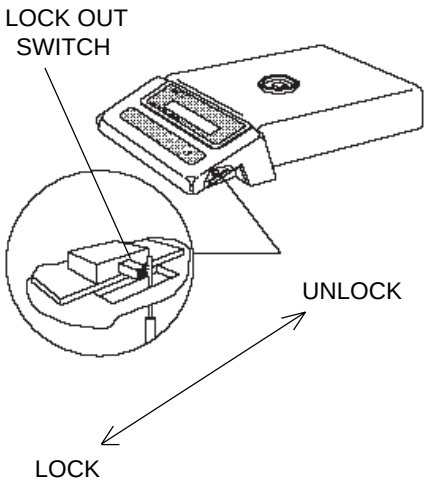
To exit the Setup menu and store your settings, press ON TARE when END is displayed.

When ON TARE is released, the balance will be returned to normal weighing operations.

MENU LOCK-OUT PROTECTION

Access to the Calibration, User, and Setup menus, can be disabled using the lock out switch located under the right side of the balance, near the display.

1. Turn the display off and unplug the power cord.
2. Slide the balance toward you, with the front over the edge of a table. (You can also turn the balance on its left side, but if you do, you MUST remove the pan and spill ring first!)
3. Locate hole under display where switch is located.
4. Using a small screwdriver, slide the switch forward for LOCKED or back for UNLOCKED.
5. Plug in the power cord and turn on the balance.



CARE AND MAINTENANCE

To keep the balance operating properly, the housing and pan should be kept clean and free from foreign material. If necessary, a cloth dampened with a mild detergent may be used. Keep calibration weights in a safe dry place.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE(S)	REMEDY
Unit will not turn on.	Power adapter not plugged in or properly connected to balance.	Check power adapter connections.
Incorrect weight reading.	Balance was not re-zeroed before weighing. Balance not properly calibrated.	Press ON TARE with no weight on the pan, then weigh item. Recalibrate correctly.
Unable to store menu settings/changes.	END not being used to exit menus.	You MUST use END to exit menus and save settings.
RS232 interface not working (when installed)	Print menu settings not properly set up. Cable connections.	Verify interface settings in Print menu correspond to those of peripheral device. Check cable connections.
Random segments displayed or display locks up.	Microprocessor lock up.	Unplug the power cord, then replug again. If condition persists, unit must be serviced.
Unable to change settings.	Lock set ON.	Set Lock switch to OFF.
Unstable readings.	Vibration on table surface.	Place balance on a stable surface or change averaging level.
Error message display.	———————	See Error Codes Table.

Error Codes

The following list describes the various error codes and which can appear on the display and the suggested remedy.

Data Errors

0.0 Transient error (hardware error, probably static discharge). If error persists, the balance must be serviced.

Tare Errors

2.0 Balance is unable to stabilize within time limit after taring. Environment is too hostile or balance needs recalibration.

Calibration Errors

3.0 Incorrect or no calibration weight used for calibration. Recalibrate with correct weights.

RS232 Errors

4.0 Bad RS232 frame. Check RS232 menu parameters and correct.

4.4 RS232 buffer is full (if installed). May occur if no printer or computer is connected to the interface. To clear buffer, turn balance off or enter Print menu and select END.

4.5 Function is disabled by the Lock switch.

User Errors

7.2 Number outside of display capacity.

Over-Under Load Errors

8.0 Hardware error causing an internal weight signal which is too low. Check if pan or pan support is off. If not, the balance must be serviced.

8.1 Hardware error caused by an internal weight signal which is too high. Check load on the platform which may be excessive. If error persists, the balance must be serviced.

8.2 Power-on load out of specification: Balance was turned on with load on pan or pan off balance. No load may be on pan when turned on and pan must be in place.

8.3 Rated capacity exceeded. Remove excessive weight from pan.

8.4 Underload condition on balance. Check that the proper pan and pan support are installed.

Error Codes (Cont.)

CheckSum Errors

9.0 Bad factory checksum. If error persists, have the balance serviced.

9.5 Bad factory calibration checksum. If error persists, have the balance serviced.

9.6 Bad mode checksum. Turn the balance off using the front panel controls. If the error persists, have the balance serviced.

9.7 Invalid setup data checksum. Check Setup, User and Print menu (when RS232 is installed) settings. If possible, try to enter menus and exit using END to restore menu settings. May be caused by a faulty component, or in rare cases, a severe static charge. If error persists, balance must be serviced.

9.8 Hardware error causing invalid calibration data checksum. Balance may need recalibration - particularly linearity calibration. If error persists, balance must be serviced.

9.9 Invalid temperature compensation checksum. Balance will work with default temperature compensation data, however, error will occur each time balance is turned on. Have balance serviced.

SERVICE INFORMATION

If the Troubleshooting section does not resolve or describe your problem, you will need to contact an authorized Ohaus Service Agent. For Service assistance in the United States, please call Ohaus Corporation toll-free at (800) 526-0659, an Ohaus Product Service Specialist will be available to help you.

SPECIFICATIONS

MODEL	JR120	JR200	JR400D	JR400	JR600	JR2K	JR4KD	JR4K
Capacity (g)	120	200	400/80	400	600	2000	4000/800	4000
Readability (g)	0.001		0.01/0.001	0.01			0.1/0.01	0.1
Weighing mode	g, lb, oz, lb:oz, ct, dwt, taels, oz t, gn, momme							
Repeatability (Std. dev.) (g)	0.001		0.007/0.001	0.007		0.01	0.07/0.01	0.07
Linearity (g)	±0.001	±0.002	±0.01/0.001	±0.01		±0.02	±0.1/0.01	±0.1
Tare range	Full capacity by subtraction							
Stabilization time	2.5 seconds							
Sensitivity drift (10 - 30 °C)	10ppm/ °C							
Operating temperature	50° to 104°F/10 ° to 40°C							
Calibration	External digital calibration							
Display (in/cm)	LCD (0.6/1.5 high)							
Power requirements	AC adapter: 100, 120, 220, 240 V ac, 50/60 Hz							
Platform size (WxHxD) (in/cm)	4.8/ 12.2					6 x 6.5/ 15.2 x 16.5		
Dimensions (W x H x D) (in/cm)	8 x 3.75 x 14/20.3 x 9.5 x 35.6 without draft shield							
Net weight (lb/kg)	9.8/4.4							
Shipping weight (lb/kg)	13.6/6.2							

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

Description	OHAUS Part No.
AC Adapters:	
100V	90766-01
120V	90765-01
220V	90767-01
240V	90768-01
240V Australia	90524-15
Pan - 4.7" dia.	77262-10
Pan - 6.0" x 6.5"	77298-10
Draft Shield Snap Clamp (JR120, JR200 and JR400D)	77334-00

ACCESSORIES

	OHAUS Part No.
In-Service Cover	78211-02
Draft Shield Kit Chamber Size: 6.0"W x 4.25"H x 6.375"D	76934-03
RS232 Interface Kit	77018-01
Cable for RS232 Interface	AS020-17
Cable with PRINT switch for RS232 Interface	AS017-25
Leveling Foot Conversion Kit:	77327-00
Weigh Below Hook	76790-00
Security Device	76288-01
Calibration Masses - ASTM Class 1 Tolerance:	
50g	49054-11
100g	49015-11
200g	49025-11
400g	49045-11
500g	49055-11
1kg	49016-11
2kg	49026-11
4kg	49046-11

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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