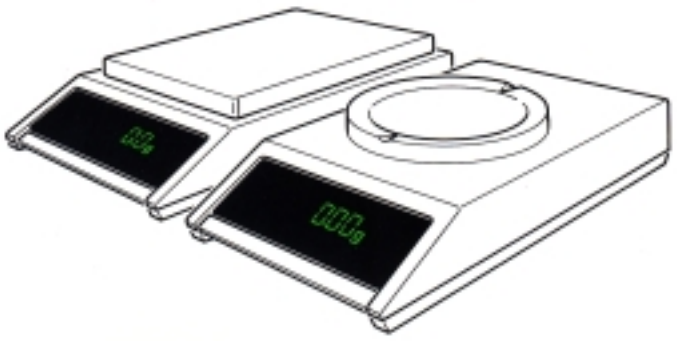
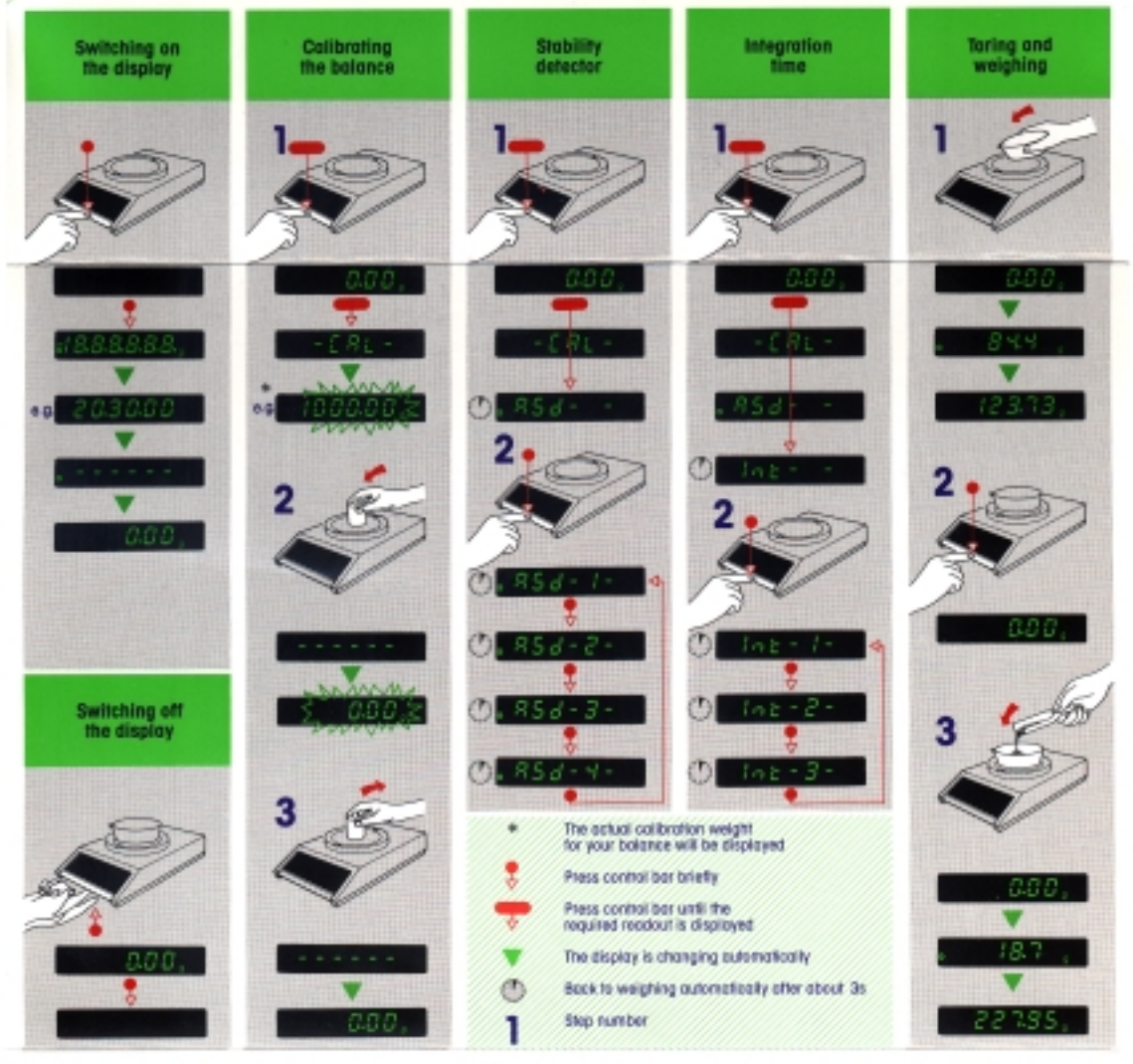
Operating instructions

METTLER
J Series balances

METTLER





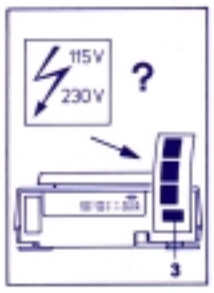
What's wrong if...

Display	Meaning	Cause	Remedy
	Display blank	– No mains power – Balance not switched on – Power cable not plugged in – Short-lived fault – Mains voltage wrongly set – Faulty fuse If trouble recurs	– Check power supply – Switch on balance – Plug in power cable – Switch balance off/on, or pull out mains plug and insert again – Set voltage correctly, see «How to change the operating voltage» – Change fuse, see «Changing the fuses is simple» – Notify METTLER service
	Zero point indefinable	– Pan support and/or pan not in place	– Put on pan support and/or pan
	Underload	– Pan support and/or pan not in place – In-use cover touching pan support – Weight below weighing range	– Put on pan support and/or pan – Fit pan support correctly – Tare balance
	Overload	– Weight beyond weighing range	– Reduce weight on balance
	Power loss	– Power cable inserted with balance switched on – Temporary mains failure	– Tare balance – Check that mains plug fits well, then tare balance
	Weighing result unstable	– Unsteady weighing position – Too much air movement	– After integration cycle, see «Integration time» – Place balance on more stable surface – Fit draft shield
	Incorrect result	– Operating error – In-use cover touching pan support	– Take off weight, tare, repeat weighing – Check balance is calibrated – Fit pan support correctly
	No calibration	– Incorrect calibration weight	– Use correct calibration weight, as indicated by the balance display
	Error signal from internal electronics monitor	– Permitted temperature range exceeded	– Pull out mains plug and insert again – If error signal persists, notify METTLER service

METTLER J Series balances

Preparation

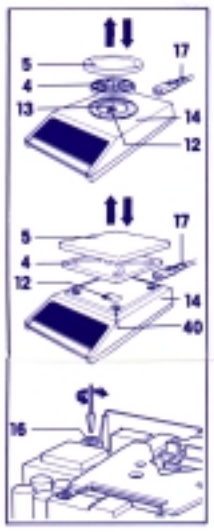
Check the supply voltage



Before starting to use the balance, make sure it is set to the right supply voltage.

Before leaving the factory, a label was fixed above the power socket **3**, showing the set voltage. If the figures do not agree with your mains voltage, or the label is missing, check the position of the voltage selector inside the balance, and alter it if necessary.

How to change the operating voltage (115 / 230 V)

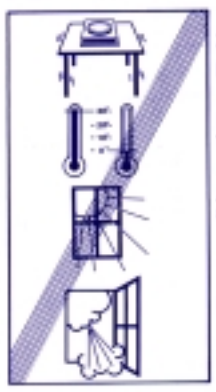


First make sure that the mains cable **17** is disconnected. With the mains cable plugged in, the inside of the balance is under voltage, even when the display is blank!
Take off pan **5** and pan support **4**, remove screw **12**, carefully raise upper housing **14** and alter voltage selector **16** with a screwdriver.
Warning: If the voltage is altered, the miniature fuse must be changed.

Carefully lower the upper housing **14** vertically onto the balance, insert screw **12** and tighten, position pan support **4** on the cone **13** or on the four rubber sockets **40**. Place pan **5** on the pan support. Plug in mains cable **17**.

Make sure the location is right

Choose a suitable place for your balance in order to obtain the best results. Having found the right place, plug in mains cable.



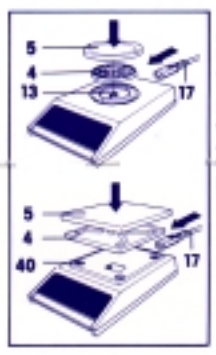
A firm base, as free from vibration as possible.

No wild temperature fluctuations.

Avoid direct sunlight.

No drafts.

Put on the weighing pan



Place the pan support **4** and the pan **5** on the tapered pin **13**. Plug in mains cable.

Place the pan support **4** with the four tapered pins **40** of the four rubber sockets. Then place the pan **5** on the pan support. Plug in mains cable **17**.

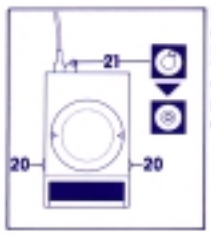
Don't forget to fit the draft shield (if available)

Take off pan **5** and pan support **4**.

Place bottom plate **6** on balance, and twist into position. Put back pan support **4** and pan **5**.

Put on shallow or deep draft shield **8** (or glass-shield) attach lid **9**.

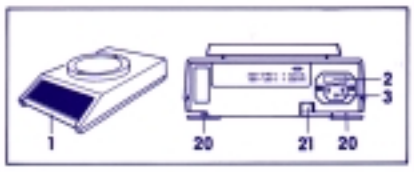
Leveling the balance



If the balance is moved to a new place, it must be re-leveled each time.
To do this, adjust the position of the bubble in the level indicator **21** by means of the screw feet **20**.

Operating

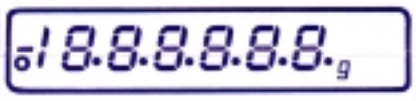
Operating controls and connections



1 Control bar
2 Fuseholder (with spare fuse)
3 Power socket
20 Screw feet (level adjustment)
21 Level indicator

Switching the display on/off

– Briefly press the single control bar; all display segments light up for several seconds:



– Afterwards, the display automatically sets itself to the weighing mode.
– Lightly lift the control bar 1; the display is switched off.

How to calibrate your balance

Before using the balance for the first time, it should be calibrated (to take account of gravity).
Warning: To obtain accurate results it is advisable to connect the balance to the mains supply 30 minutes before calibrating.

– Press and hold the single control bar until -CAL- appears in the display, then release control bar. The display changes to ------, then to calibration weight (blinks).
– Place required calibration weight on pan (e.g. 1000.00 g); the display changes to ------, followed by -0.00 g- (blinks).
– Remove weight from pan; the display changes to ------, followed by -0.00 g-.

Your balance is calibrated now.

Measuring cycle / measuring accuracy

By selecting a particular stability detection as well as a particular integration cycle, step, the balance can be configured according to your weighing location and needs.

Stability detector:

	Measuring cycle	Reproducibility
ASd -1- ASd -2- ASd -3- ASd -4-	very fast ▲ slower	good ▼ very good

– Press the control bar and hold until -ASd- appears in the display, then release control bar.
– Immediately press control bar again briefly; the display changes to the next step.
– Stop at the step you wish to use and wait until the display to return to the weighing mode.

Note: After selecting the stability detector you can go directly to the selection of the integration time setting by holding the control bar down.

Integration time:

Int-1: Used for very stable, vibration-free weighing table (short measuring cycle).
Int-2: Normal setting.
Int-3: Used for unfavorable ambient conditions (long measuring cycle).

– Press the control bar and hold it until -Int- appears in the display, then release the control bar.
– Immediately press the control bar briefly; the display will change to the next step.
– Stop at the step you wish to use and wait for the display to return to the weighing mode.

Taring

– Place a tare container on the weighing pan.
– Press the control bar briefly; the display changes to zero.

The weight of the container is now tared out. The balance weighing range – minus the weight of the tare container – is now available for weighing.

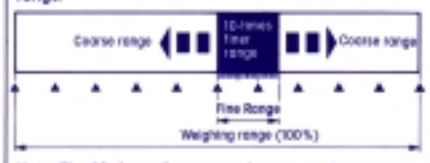
Weighing-in

– Fill in substance up to the desired target weight
– Read the weight accurately.

If different components are to be weighed, one after the other, into the same container, it is possible to tare after each weighing and start the next weighing from zero. This can be done until the tare container and all the components together reach the end of the weighing range.

METTLER DeltaRange balances ...

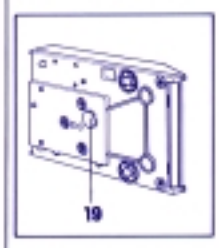
... have a fine range with 10 times the accuracy. By pressing the control bar (taring) this can be called up as often as you like anywhere throughout the weighing range.



Note: The 10-times finer range is also available when backweighing.

Other possibilities

Weighing underneath the balance



An opening **19** is provided for weighing underneath the balance. The weighed items are then suspended from the weighing cell, which requires a cutout in the bench.

The holder for the weighed items is not available from METTLER, and must be provided by the customer.

Care and maintenance

The balance should be cleaned from time to time

A cloth and a little soapy water is sufficient to clean the pan and housing. Do not use strong solvents.

Warning: Do not lay the balance upside down (you may damage the measuring cell)!

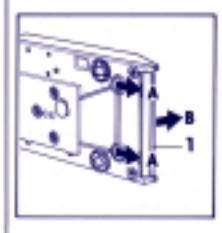
Changing the fuses is simple

The spare fuse is in the fuseholder **2**.
Fuse ratings:
115 V ⎓ 125 mA slow
230 V ⎓ 63 mA slow

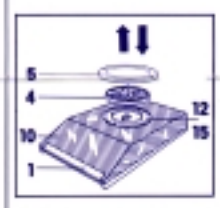
Unplug the mains cable **17**. Take out the fuseholder **2** with a screwdriver. Remove broken fuse and fit new fuse. Put back the fuseholder. Plug in mains cable.

How to change the in-use protective cover

If the protective cover is dirty, it can be changed in the following way:

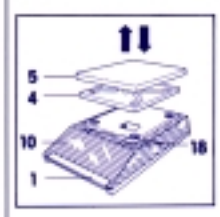


Remove pan **5** and pan support **4**. Turn bottom plate **12** or retaining ring **15** until it disengages, then lift off. Stand the balance on its side. The control bar **1** can be removed by pressing it firmly towards **A**. It is then disengaged and can be pulled off in direction **B**. Remove the in-use cover **10**.



Fit new protective cover on balances...

...with round pan:
Fit new protective cover **10**. Slide in control bar **1**. Place bottom plate **12** or retaining ring **15** and twist until it engages. Place the pan **5** on the pan support **4**.



...with square pan:
Remove protective tape from adhesive areas before fitting the new protective cover **10**. Fix new protective cover **10** at the back, put it over the balance and press the adhesive areas **18**, on the upper housing. Replace control bar **1**, pan support and pan.

Accessories

– See advertising brochure.
Field Installation Kit for 018 Data Interface, Order No. 33674.

Technical Specifications

– See advertising brochure

METTLER

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