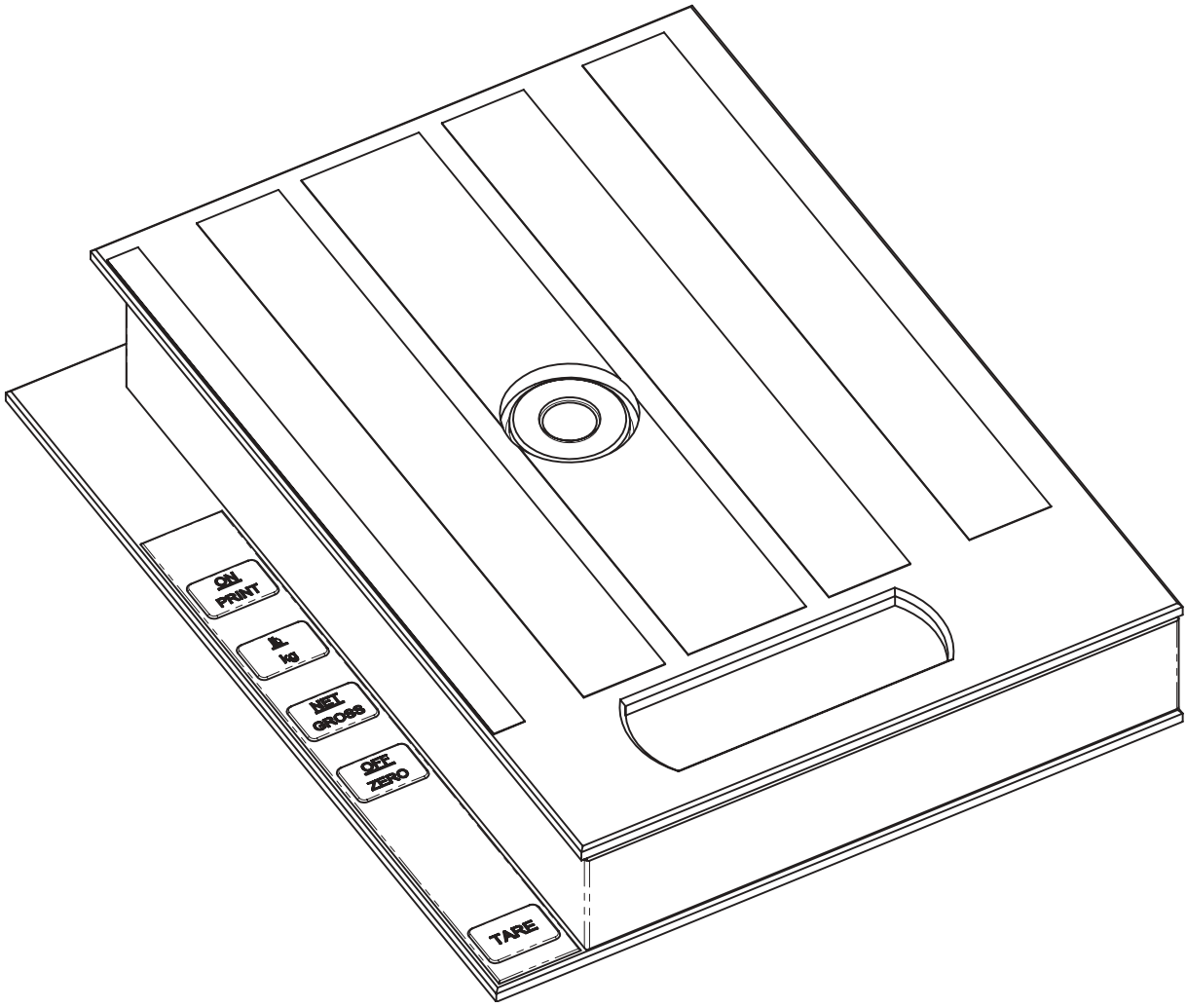
KALLER®

USER'S GUIDE
WEIGHING BLOCK
for Digital Force Test Rig



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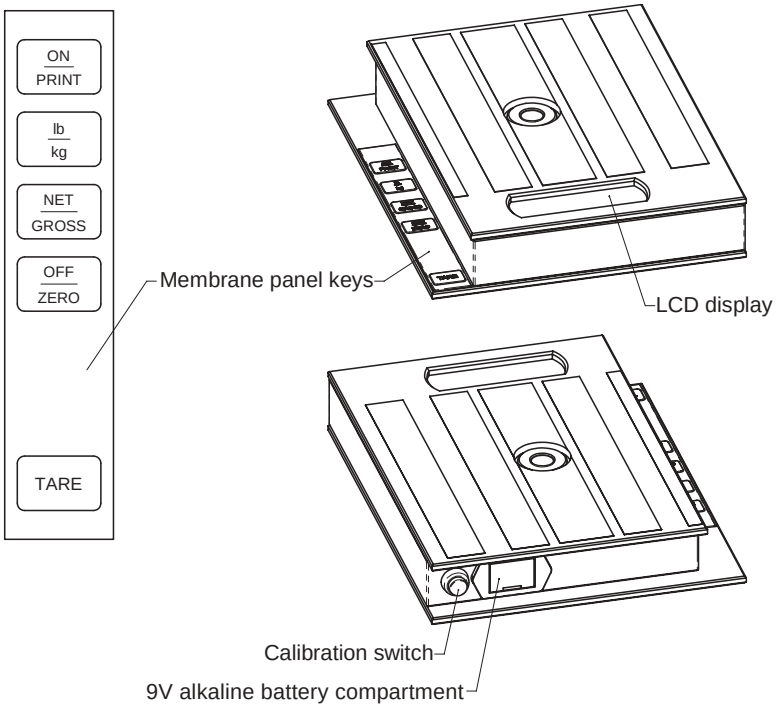
This guide applies to the 8000 daN Weighing Block VB2-8K, Order No. 2016759, used on Digital Force Test Rigs 1016713-1100 and 1016713-1330.

Introduction

The weighing block is a robust digital force meter. It comes with a large 3/4" LCD display for easy readout. All setup parameters may be entered via the membrane panel keys. The weighing block has an "intelligent" auto power off function. It is equipped with a 9V alkaline battery. If the battery charge is not sufficient to ensure a correct value the weighing block will switch off automatically.

The weighing block should be protected from fluids if the enviroment is wet or if there is a risk of leakage. It is possible to cover the weighing block with a transparent plastic bag.

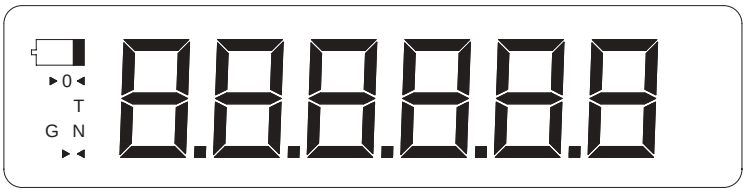


Capacity/Graduation	max. 8000 daN / 2 daN
Dimensions [mm]	260 x 210 x 54
Weight	3.2 kg
Battery	1 pc 9V alkaline
Operating temperature	-10 to +40°C
Storage temperature	-25 to +70°C

Panel Key functions

ON / PRINT	Press to switch ON the weighing block. (PRINT function is disabled)
lb / kg	Toggling between lb and kg is disabled. Displayed values are always in daN.
NET / GROSS	Toggles between GROSS and NET force only if a tare previously been set.
OFF / ZERO	Sets the weighing block to display "0" when in GROSS mode, and within ZERO band range. To switch of, hold button in for 3 seconds. The weighing block will automatically switch off after 2 minutes of inactivity.
TARE	Used to establish a TARE (zero the display) while in either gross or net mode. This operation can not be performed at or below gross zero.

LCD Display definitions



Indicates battery condition.
The display also shows "bAtt" when battery is low and needs replacing.

▸0◂ "Center of zero".
This light is active whenever the displayed weight/force is within ±0.25 divisions of true zero.

T Indicates that a tare weight/force has been set.

G Indicates that the indicator is displaying gross weight/force.

N Indicates that the indicator is displaying net weight/force.

▸◂ Indicates stable measuring.

Calibration

It is recommended to calibrate the weighing block at yearly intervals. To perform a sucessful and accurate calibration it is recommended to use a test weight/force corresponding to 70% (or more) of the weighing block's max. capacity.

To calibrate the zero point using the F16 zero calibration procedure:

1. Turn the power OFF.
2. Press the Calibration switch once.
3. Turn the power ON and the display will show F1, if not, go back to step 1.
4. Scroll to "F16". Use the TARE or ON key to move up or down. (If necessary, press lb/kg to go back to parameter number.)
5. Press ZERO. The display will momentarily show "C0" followed by a value. (If necessary, press lb/kg to go back to parameter number.)
6. After making sure there are no weights on the platform, press ZERO to zero out the displayed value.
7. Press NET to save the zero point value. The display will show "EndC0" momentarily, and the revert back up to "F16". At this time, proceed to the F17 span calibration to complete indicator calibration.

To calibrate the max. point using the F17 span calibration procedure:

1. Scroll to "F17", then press ZERO to enter span calibration menu.
2. The display will momentarily show "C1" for the span calibration, followed by a value with one flashing digit. This value will be zero. Place the test weight/force on the weighing block.
3. Pressing TARE or ON will change the position of the flashing digit.
4. Increase the flashing digit by pressing lb/kg. Decrease the flashing digit by pressing ZERO.
5. After setting the exact value, press NET to save the value.
6. If the calibration was sucessful, the display will show "EndC1" momentarily, and then revert back up to "F17".
7. Press the Calibration switch once for normal mode.

For additional configuration settings, see last page.

Trouble Shooting

The display is not working

Check the battery.

The display shows wrong value

The calibration has been lost, recalibrate the weighing block.

Some configuration parameters have been changed by mistake, change the parameters to the correct value according to the table (recalibration might be needed).

The display shows "F1"

Setup menu have been activated, return to normal mode by pressing the calibration switch once and turn the power ON and OFF.

Error codes

Code	Mode	Meaning / Possible soultion
❒❒❒❒❒	Normal Operating Mode	Gross overload. A weight/force than the rated capacity has been applied. Remove the weight/force or try re-calibrating.
bAtt	Normal Operating Mode	Indicates a low battery condition.
Err 0	Span Calibration Mode (F17)	Keyed-in weight/force value is larger that rated capacity. Use a smaller test weight/force or check keyed-in value.
Err 1	Span Calibration Mode (F17)	Keyed-in force value is less than 1% of rated capacity. Use larger test weight/force or check keyed-in value.
Err 2	Span Calibration Mode (F17)	There is not enough load cell signal to produce the internal counts necessary to properly calibrate the weighing block.
Err 3	All Modes	Non-volatile memory read error. The unit needs service.
Err 4	All Modes	Non-volatile memory write error. The unit needs service.
Err 5	Key-in Span Calibration Mode (F20)	You have attempted to enter a zero value for "C1". Enter a known calibration value greater than zero.
Err 7	Initialization	No reading from the ADC.
Err 9	Normal Operating Mode	Span calibration value has been lost. Re-calibrate the weighing block.

Configuration

Read all instructions thoroughly before attempting to change any of the configuration parameters, as wrong settings may cause the weighing block not to work properly.
If in doubt, please contact your local distributor or Strömsholmen AB directly.

To access the setup menu:

1. Turn the power OFF.
2. Press Calibration switch once.
3. Turn the indicator ON.
4. The display shows ”F1” to indicate that the unit is in Setup menu mode.
5. To move to a new parameter, use TARE or ON to move up or down.
6. To move to value selection, press ZERO once.
7. Increase the value by pressing lb/kg. Decrease the value by pressing ZERO.
8. To save the value, press NET.
9. Press lb/kg to go back to parameter selection.
10. Press Calibration switch once to go back to normal operating mode.

Parameter	**Description**	**Code / Value** (Recommended Kaller setting displayed in **bold** text)
F1 Graduations	Specifies the weighing block's graduation	500 1.000 1.500 2.000 2.500 3.000 **4.000** 5.000 6.000 8.000 10.000
F2 Span Gain	Span gain is related to A/D integration time. The larger the span gain, the higher the internal resolution, but the the slower the update speed.	25 **50** 75 100 150 200
F3 Zero Track Band	Selects the range within which the weighing block will automatically zero. Note that the weighing block must be in stand-still to automatically zero. Selections are in Display Divisions ("d" = graduation)	0d 0.5 **1d** 3d 5d
F4 Zero Range	Selects the range within the weighing block may be zeroed. Note that the indicator must be in stand-still to zero.	**100%** 1.9% 2% 20%
F5 Motion Band	Sets the level at which motion is detected by comparing the present display updated with the previous one. If motion is not detected for two seconds or more, weighing block is in stand-still and can process a Zero command. Maximum value varies depending on local regulations.	0.25d 1d. **3d** 5d 10d
F6 Digital Filter	Averages weight readings to produce higher acccuracy. The higher filter no. the greater accuracy but the slower the response time. Choose 4 or 8 unless a very fast response time is needed.	1 2 4 **8**
F7 Overload Limit	Select the desired formula which determines the point at which the indicator shows overload ("❒❒❒❒❒❒"). All selections are based on the primary unit selected in F8. ("FS" = Full capacity in primary units)	FS **FS+2%** FS+1d FS+9d
F8 Calibration Unit	Selects the primary base unit to be used in the calibration process. Also the default unit for normal operation. ("1"=primary unit lb / "2"=primary unit kg)	1 **2**
F9 Display Divisions	Determines the disired weight increments. Value should be consistent with legal requirements.	1 **2** 5
F10 Decimal Point	Determines location of of the decimal point.	**0** 0.0 0.00 0.000 0.0000
F16 Zero Calibration	Places the indicator into the zero calibration routine. Scrolling down with ZERO begins the procedure.	Press ZERO to begin sequence
F17 Span Calibration	Places the indicator into the span calibration routine. Scrolling down with ZERO begins the procedure.	Press ZERO to begin sequence
F21 Factory Reset	This sub-menu will reset all parameters in the "F" and "A" menu to the default settings. USE WITH CAUTION!	Press ZERO twice to execute
A5 Disable lb/kg	Disables/enables the lb/kg key. ("0"=disabled / "1"=enabled)	**0** 1
A10 Auto Power Off	Selects the auto off time period in minutes. "off"=Disabled (always ON)	1 2 4 10 **20** 60 off