



**KERN & Sohn GmbH**

Ziegelei 1  
D-72336 Balingen  
E-Mail: [info@kern-sohn.com](mailto:info@kern-sohn.com)

Phone: +49-[0]7433- 9933-0  
Fax: +49-[0]7433-9933-149  
Internet: [www.kern-sohn.com](http://www.kern-sohn.com)

# Operating instructions KERN App Precision & Safety - Precision and Safety Function

## KERN SET-011

Version 1.0  
2020-10  
GB



The current version of these instructions can also be found online under:  
<https://www.kern-sohn.com/shop/de/DOWNLOADS/>  
Under the section Operating manuals

SET-011-BA-e-2010\_precision-safety



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# KERN App Precision & Safety

Version 1.0 2020-10

## Operating instructions

### SET-011

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# 1 Weighing function Precision & Safety Function



The Precision & Safety function is especially suitable for pharmaceuticals and similar applications where a safe operation in critical and risky environment must be granted.

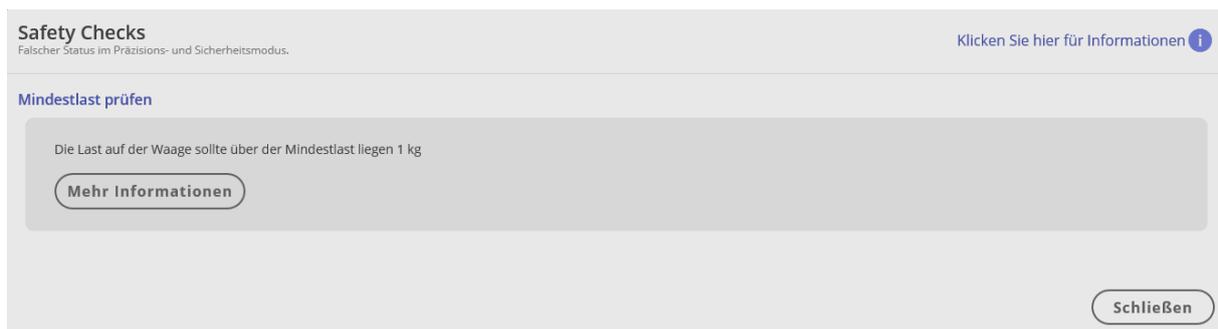
## 1.1 General

If the device contains test functions and the device registers an error, this symbol  left above will appear:



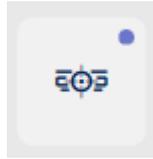
Clicking the symbol, a window opens with the registered error message.

**Here is an example:**



Clicking the field "More information" you reach to this test function and can correct the error.

## 1.2 Call up safety management



In the menu FUNCTIONS click the “Safety” button. If you call up for the first time, the screen for safety management of balances appear.



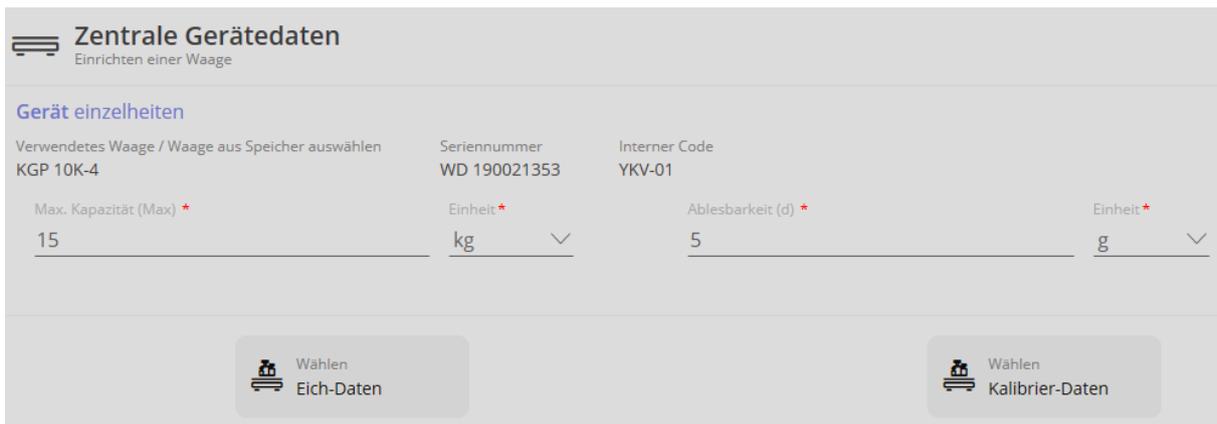
First the device data are entered.

## 1.3 Enter central device data

Here you can enter the verification and calibration data of a device:



Click the blue field “Central device data”. The list of the stored devices appears. Click the desired device. The screen to register the system data appears. Enter all obligatory fields.



### 1.3.1 Enter verification data



Click the field “Verification data”. The fields concerning the verification appear. Fill out all fields:  
**Here is an example:**

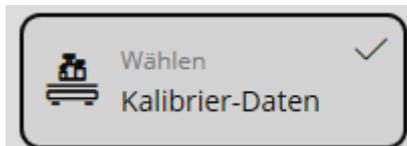
A form with a header bar containing the same 'Wählen Eich-Daten' button as in the previous image. Below the header are several input fields:

- 'Eichwert (e) \*' with the value '5' and a unit dropdown menu set to 'g'.
- 'Mindestlast, METR (Min) \*' with the value '15' and a unit dropdown menu set to 'kg'.
- 'Datum der Ersteinigung (yyyy-mm-dd) \*' with the value '2019-11-20' and a calendar icon.
- 'Datum der letzten Nacheichung (yyyy-mm-dd) \*' with the value '2020-05-03' and a calendar icon.
- 'Waage (Klasse) \*' with the value 'Waage (Klasse) -II' and a dropdown arrow.
- 'Eichdauer (Nacheichungen) \*' with the value '1 Jahr(e)' and a dropdown arrow.

Then click the blue „Save“ button bottom right. The verification data are now stored for this device.

### 1.3.2 Enter calibration data

In the device overview click the desired device. The screen for the device data will



appear Click the field “Calibration data”. The obligatory fields appear and can be entered.

Here is an example:



The screenshot shows a form titled "Wählen Kalibrier-Daten" with a checkmark icon. It contains three fields: "Datum der Erstkalibrierung (yyyy-mm-dd)\*" with the value "2019-11-11", "Datum der letzten Kalibrierung (yyyy-mm-dd)\*" with the value "2020-05-03", and "Rekalibrierungszeitraum\*" with the value "1 Jahr(e)".

Then click the blue „Save“ button bottom right. The calibration data are now stored for this device. Now you can call up further functions.

#### 1.4 Check point function Test points

Here you can define one or more Test points for each balance which refer to a certain nominal load. For every test point you can define an upper and a lower tolerance.



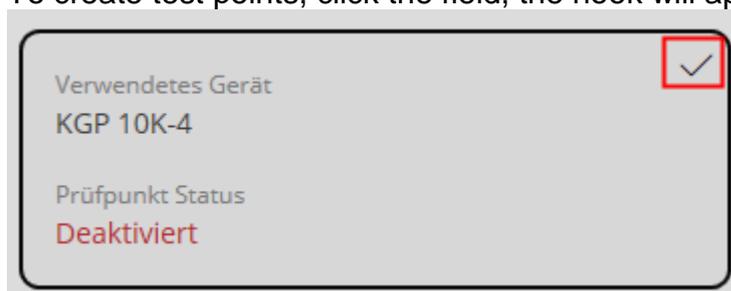
In the overview click the field "Test point function". The status of the used device is shown. If for this device no test point has been defined yet, "Disabled" appears.

Here is an example:



The screenshot shows a card with the text "Verwendetes Gerät KGP 10K-4" and "Prüfpunkt Status Deaktiviert".

To create test points, click the field, the hook will appear:



The screenshot shows the same card as above, but with a red checkmark in the top right corner, indicating that the test point function is now active.

### 1.4.1 Enter test points



Now in the menu appears the button “Add” Clicking this button, the screen for the input of the test points will appear.

**Prüfpunkt**  
Checkpoint zur Ausführung hinzufügen

**Erstellen Prüfpunkte**

Modell	Max. Kapazität (Max)	Ablesbarkeit (d)
KGP 10K-4	15 kg	5

Anzahl der Prüfpunkte: Min 1 - Max 20 \*

Bitte geben Sie die Anzahl der Checkpoints ein

Es können MIN 1 bis MAX 20 Checkpoints erstellt werden

**Bestätigen**

Hier können Sie festlegen, in welchem Zeitintervall und zu welchem Zeitpunkt diese Kontrollpunkt-Prüfung erforderlich sein soll.

**täglich** Wöchentlich Monatlich Jährlich

Jeder 1 Tage

Jeden Wochentag

Checkpoint-Intervall zwischen 00:00 und 23:59 Uhr | Beispiel 08:05(HH:MM) \*

8:00

First enter the quantity of test points. You can enter between 1 and 20 test points. Then click „Confirm“. The input to define each test point will appear. Fill out all fields.

**Erstellen Prüfpunkte**

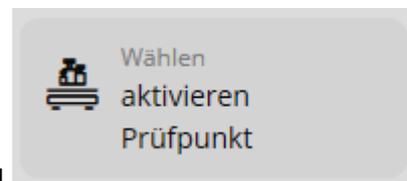
Punkte *	Einheit *	Toleranz Typ *	Untere Toleranz 1 *	Einheit *	Obere Toleranz 1 *	Einheit
7500	g	relativ	1	%	1	%
Punkte *	Einheit *	Toleranz Typ *	Untere Toleranz 2 *	Einheit *	Obere Toleranz 2 *	Einheit
15000	g	relativ	1	%	1	%

Then you can define a time interval and a date when the test will take place:

## 1.5 Check point function time interval

Define time interval and date of the test:

The screenshot shows a configuration interface with four tabs: "täglich" (selected), "Wöchentlich", "Monatlich", and "Jährlich". Below the tabs, there are two radio button options: "Jeder" (selected) and "Jeden Wochentag". The "Jeder" option has a text input field containing "1" and a "Tage" label to its right. Below these options, there is a text input field for the "Checkpoint-Intervall zwischen 00:00 und 23:59 Uhr | Beispiel 08:05(HH:MM) \*", which contains "8:00".

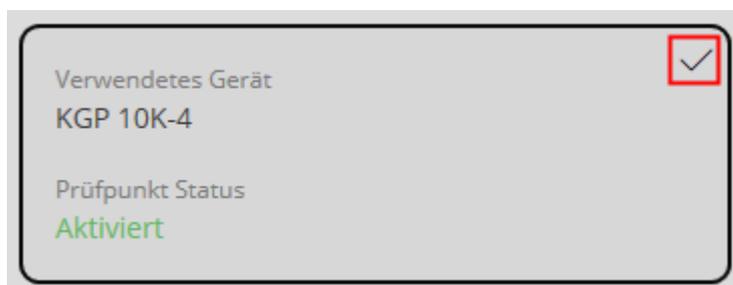


If all fields were filled, click the right-hand field, the hook appears. Then click the blue button "Save". The safety status of the device appears as



"Enabled".

Clicking the field, the hook will appear



and right-hand in the menu the buttons:

	<b>Execute:</b> Starting the test manually
	<b>Processing:</b> Change the test points, the time interval and the date
	<b>Disable:</b> Switch off the test

## 1.6 Check point function Test & Follow

When the test point function is enabled you may work with the balance as long as all tests are carried out successfully. If a test is not approved, the data of this balance can neither be stored nor printed out.

A test has not been approved if:

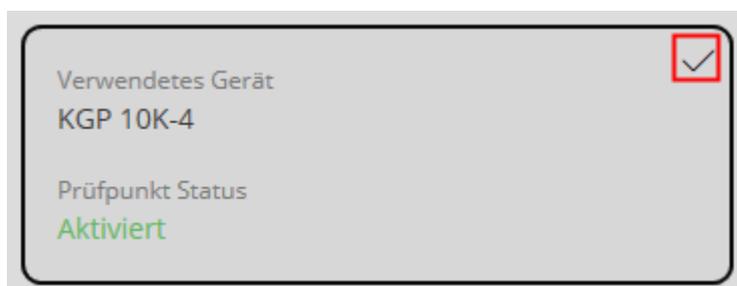
- the display in one or several test points is outside the tolerance
- if the calibration intervals of one or several test weights are expired
- if the mass of one or more test weights is outside the allowed OIML tolerance.

### 1.6.1 Adjust again the test points

In the overview click “Test point function”:



Then click the field of the device which has to be adjusted. The hook in the field appears, as well as on the right in the menu the three points “Execute”, “Edit” and “Disable”.





Click „Execute“, the screen to redefine the test points appears:



Now the first test point can be set. Load the balance until the green bar graph appears:



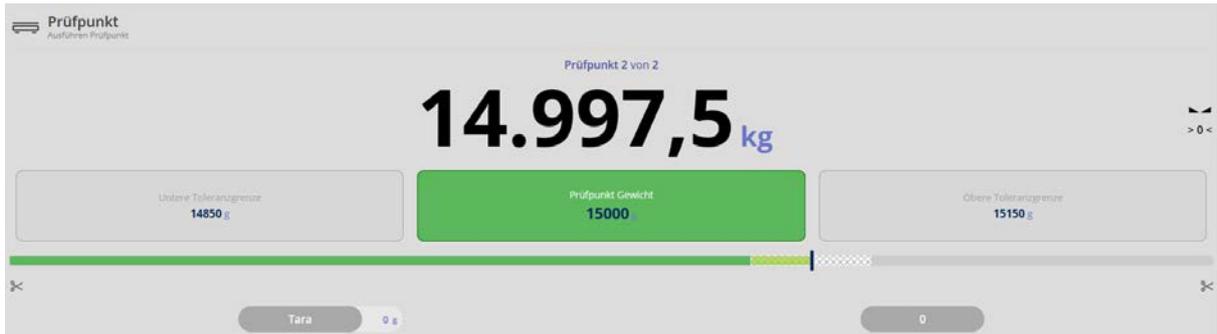
After that click bottom right the blue button “Save weight”.

The first test point is now stored as new.

To define the second adjustment point unload the balance and click bottom right on “Test point 1 → “. The screen for the second test point appears.



Here load the balance in the same way, until the bar graph changes to green:



Register all the other test points in this manner.

If all test points are entered, the button “Summary→” bottom right will appear automatically. Click this button:

The summary of all the new determined test points with the corresponding status will appear:



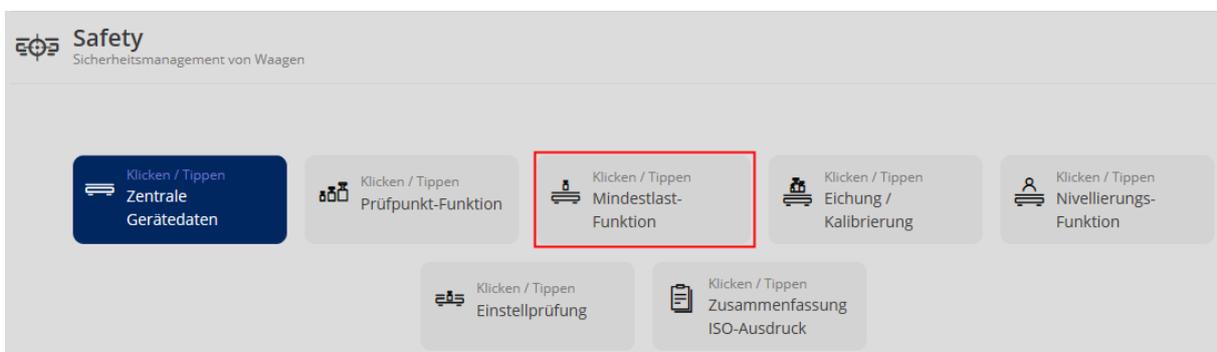
Take over this result with the button “Save” bottom right.

### 1.7 Check point function minimum load

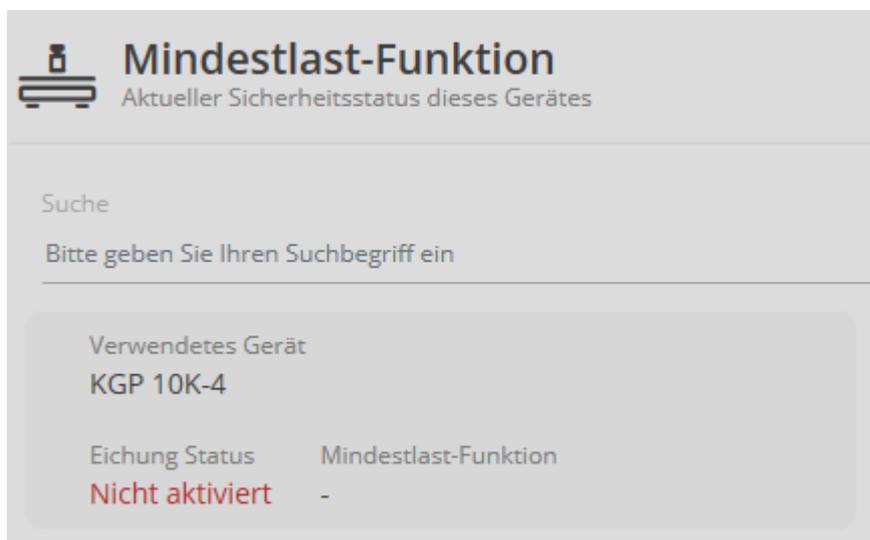
With this function, a so called minimum weight can be allocated to every balance. This individual minimum weight means that the balance is blocked when the load on the balance is less than this weight. This minimum weight must be bigger than the actual minimum weight of the balance.

If the balance is blocked, data can neither be stored nor printed out.

In the overview click the field „Minimum load function“:



If no minimum load has been defined yet for this device, „Not enabled” appears.

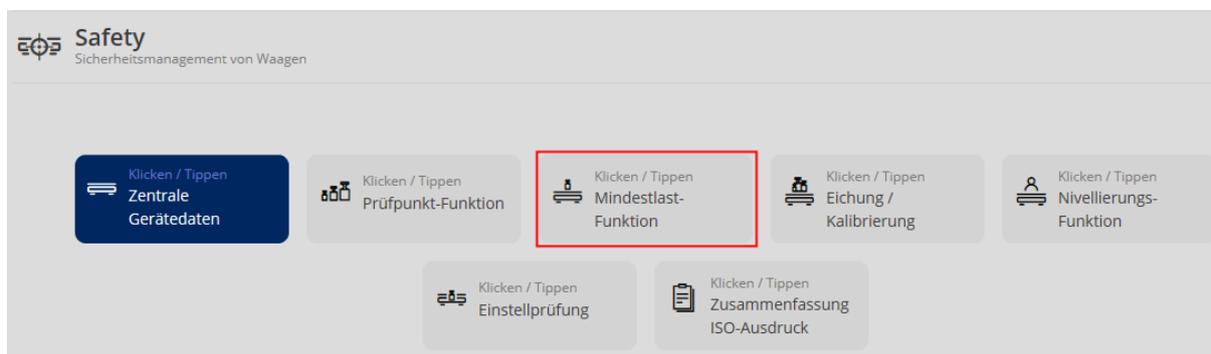


Click this field, the screen to define the minimum weight will appear. Device information and verification data will be displayed. Enter the individual minimum weight and click the field „Activate the minimum load test“



Finish the process with the blue button „Save“ bottom right. If the weight on the weighing plate below this value, the balance will be blocked.

If the minimum load function is called-up again:

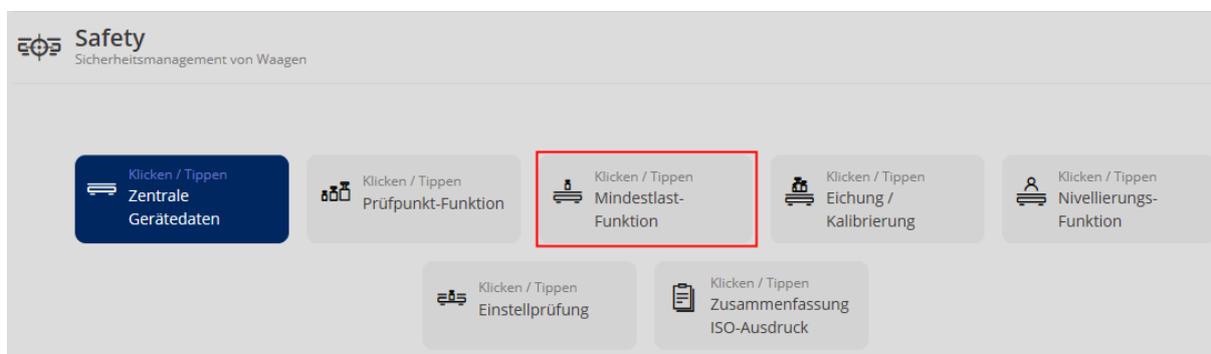


The status appears now as „Enabled“



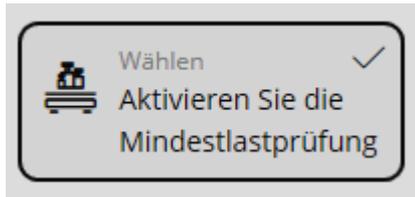
### 1.7.1 Disable function

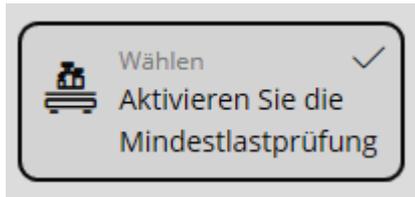
In the overview call-up the function:



Click field:





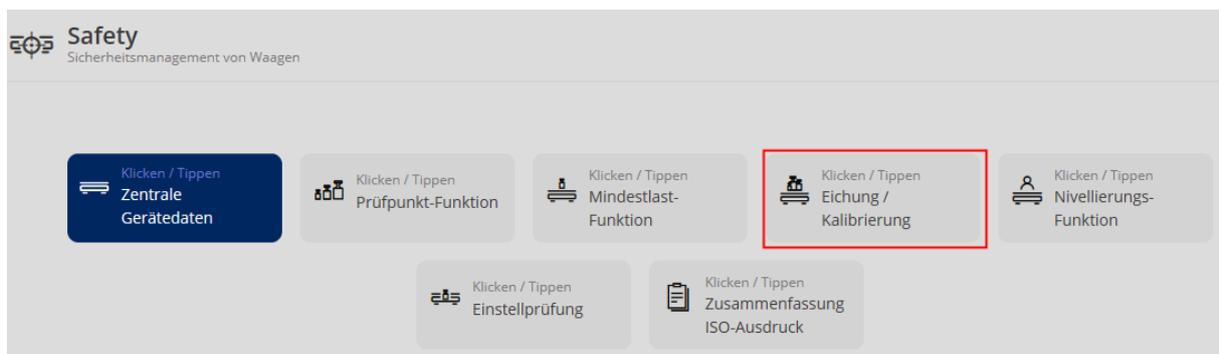
Then click , the hook disappears. Bottom right click „Save“. The values of the function remain conserved, the function is only momentarily disabled, but can be reactivated at any time by placing the hook.

### 1.8 Check point function Verification / Calibration

Using this function, a verification and calibration deadline can be allocated to every balance. When the deadline expires, the balance will be blocked.

First you have to enter the verification and calibration data under the menu item „Central device data“ (see chapter “Enter central device data”).

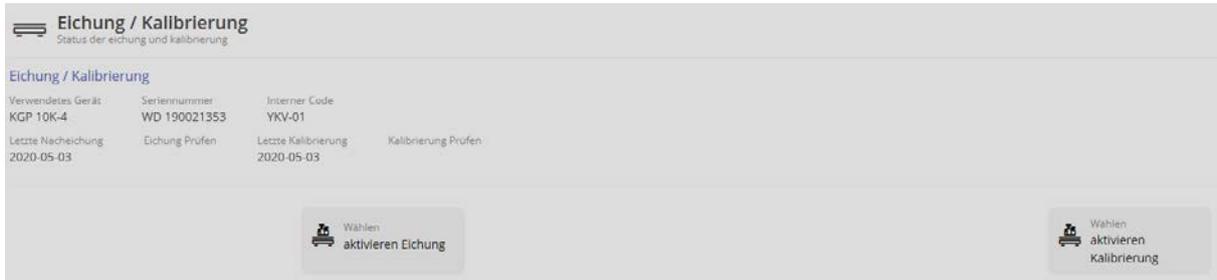
In the overview click the field „Verification/Calibration“:



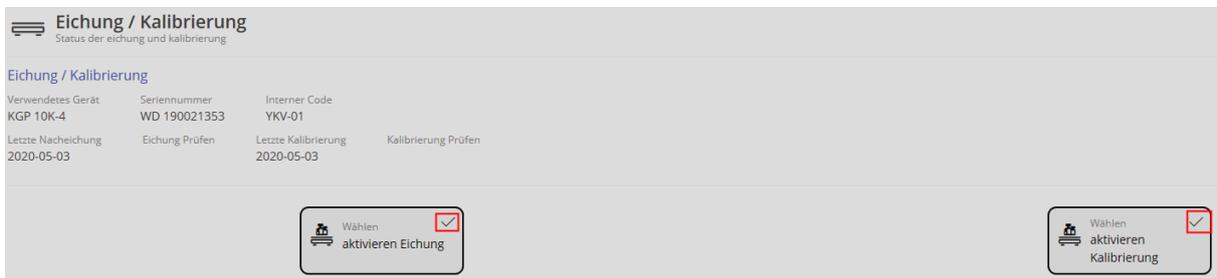
The status selected as last (active/not active) appears. Here is an example:



Click the field to edit the respective status:



Here the test of the verification and the test of the calibration can be edited, enabled or disabled, separated from each other. When being enabled, the hook appears:  
**In this example both of them are active:**

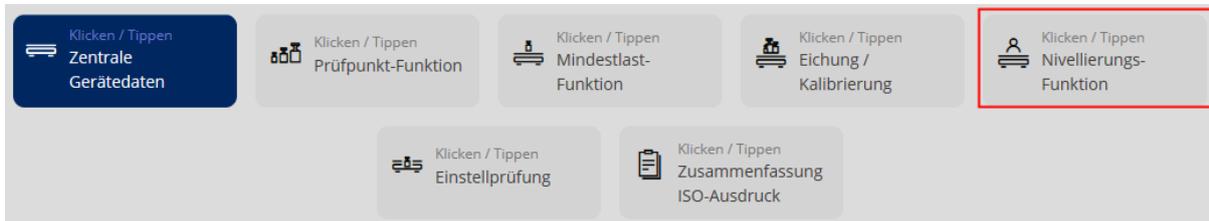


Then click „Save“. The test is now enabled for both of them.

### 1.9 Check point function Levelling

Use this function to call-up an optical test for balance levelling. After a previously defined time, the user is prompted to test the balance levelling and to confirm this test. If the confirmation does not take place after the scheduled time, the balance will be blocked.

In the overview click the field „Levelling function“.



Click the device for which this function shall be set, the screen for setting this function appears.

Now adjust here the time interval, within which you will be prompted to test the levelling:

**Here is an example:**

Gerätemodell	Seriennummer	Interner Waagencode	Aktivierungsstatus	Letztes Intervalldatum	Nächstes Intervalldatum
KGP 10K-4	WD 190021353	YKV-01	Nicht aktiviert	--	--

täglich     Wöchentlich     Monatlich     Jährlich

Jeder    1    Tage     Jeden Wochentag

In field „Enable levelling“ put the hook:

Wählen aktivieren Nivellierung

and then click „Save“. Now (as shown in this example) you are prompted to test the levelling of this balance every day.

If this message appears:

Nivellierung Status

Gerätename:  
KGP 10K-4

Bitte überprüfen Sie die Nivellierungsanzeige der Waage. Wenn die Waage nicht ordentlich nivelliert ist, dann korrigieren Sie bitte die Nivellierung, um sicherzustellen, dass die Waage richtig wiegt. Danke!

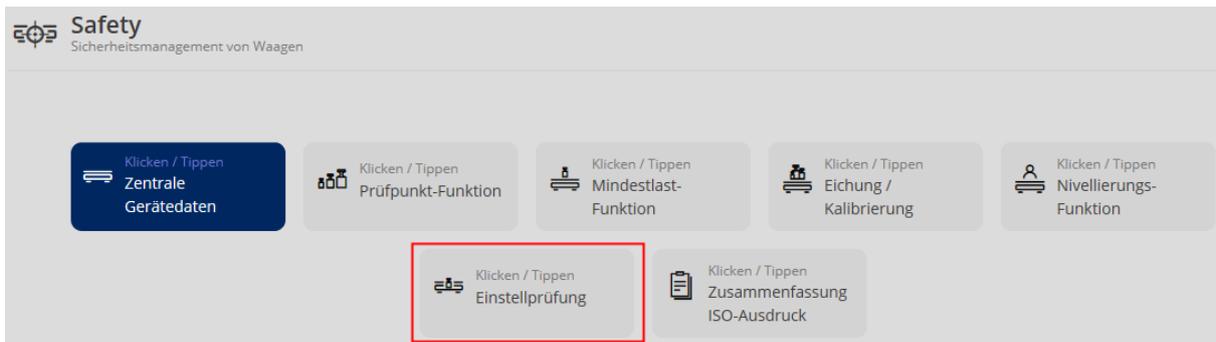
Nivellier Status Ok   

Test levelling, put a hook and click „Save“.

## 1.10 Check point function settings test (adjustment test)

Here you can allocate to any balance a time interval, within which the user will be prompted to adjust the balance. If after this reminder the balance is not adjusted, storing of weighing results will be blocked automatically.

In the overview click the field „Settings test“:



The screen to select the device will appear, where the adjustment test shall be stored. Click the field of the desired device:

**Here is an example:**



Click the field, the device information and the input fields for the adjustment test will appear. Enter the last adjustment and the time interval:

Here is an example:

**aktivieren Einstellprüfung**  
Aktueller Sicherheitsstatus dieses Gerätes

**Geräteinformationen**

Verwendetes Gerät	Seriennummer	Interner Waagencode
KGP 10K-4	WD 190021353	YKV-01

Hier können Sie festlegen, in welchem Zeitintervall und wann die Einstellfunktion an der jeweiligen Waage ausgeführt werden soll.

Letzte Justierung (yyyy-mm-dd)\*  
2020-08-17

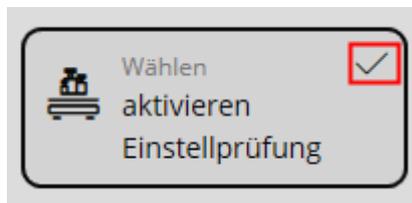
täglich     Wöchentlich     Monatlich     Jährlich

Tage  
 Jeder 1 Tage  
 Jeden Wochentag

Einstellintervall zwischen 00:00 und 23:59 | Beispiel 08:05(HH:MM)\*  
8:00

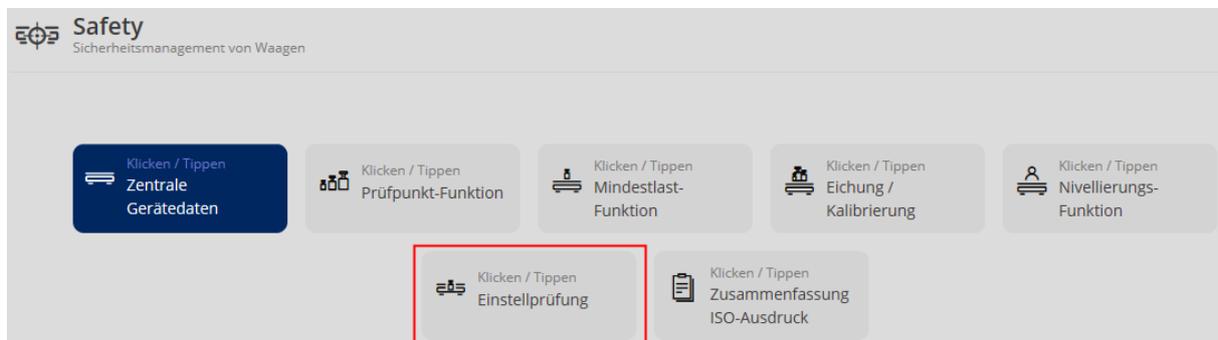
**Wählen aktivieren Einstellprüfung**

After that put the hook in the field „Enable settings test“ to activate the adjustment test for this time interval.



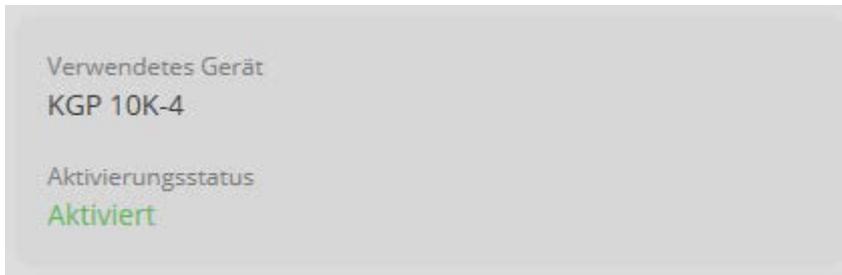
and then click the button “Save” bottom right.  
Now the adjustment test function is enabled.

To disable this function, in the overview click the field „Settings test“:

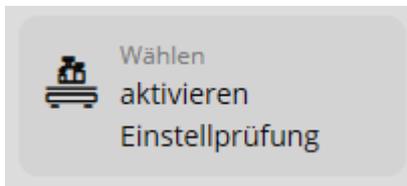


The overview of devices appears. Click the device whose adjustment test you want to disable.

**Here is an example:**



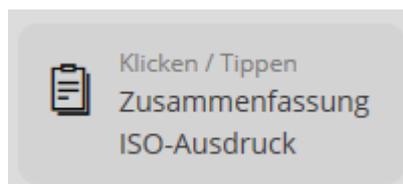
The device information appears. Below click to remove the hook in the field „Enable settings test”:



and bottom right click „Save“. The adjustment test function is now switched off. In the field of the device „Not active” appears as activation status.

### 1.11 Check point function summary ISO printout

In this log the exact status of the balance is registered at the moment when printed out. An overview of the verification and calibration status of the balance is created, as well as of the levelling check.



In the overview click the field . After that click the field of the device, of which an ISO printout shall be created:

**Here is an example:**



The overview of the registered check points and their status appear:

 **Zusammenfassung ISO-Ausdruck**  
Aktueller Sicherheitsstatus dieses Gerätes

Verwendetes Gerät KGP 10K-4	<b>Mindestlast-Funktion</b>
Seriennummer WD 190021353	Mindestlast-Funktion 1,5 kg
Interner Code YKV-01	<b>Nivellierungs-Funktion</b>
Standort des Geräts -	Zuletzt durchgeführt 2020-10-13
Max. Kapazität (Max) 15 kg	
Ablesbarkeit (d) 5	
<b>Eichung</b>	<b>Kalibrierung</b>
Zuletzt durchgeführt 2020-05-03	Zuletzt durchgeführt 2020-05-03
Nächste fällige Eichung 2021-05-03	Nächste fällige Kalibrierung 2021-05-03
<b>Einstellprüfung</b>	
Letztes Anpassungsdatum 2020-08-17	
Nächstes Anpassungsdatum 2020-8-18	
<b>Prüfpunkt Test</b>	

This overview can be printed out with the right-hand button



„Printout“:

Drucker

KONICA-Service an print2

Die App darf meine Druckeinstellungen ändern

Ein

Ausrichtung

Hochformat

Kopien

1

Farbmodus

Farbe

[Weitere Einstellungen](#)

Drucken Abbrechen

1 / 2

**KERN**

Metrological status of this weighing device  
Gerätedetails:

Modell	KGP 10K-4
Seriennummer	WD 190021353
Interner Code	YKV-01
Standort des Geräts	
Max. Kapazität (Max):	15 kg
Ablesbarkeit (d)	5
Datum	2020-10-15
Zeit	10.15.18
Nutzername	Peter Maier

Prüfpunkt Test

Zuletzt durchgeführt	2020-10-14
1 : 7500 g	Bestehen
2 : 15000 g	Bestehen

Mindestlast-Funktion

Mindestlast-Funktion	1,5 kg
----------------------	--------

Eichung

Zuletzt durchgeführt	2020 05 03
Nächste fällige Eichung	2021 05 03

Kalibrierung

Zuletzt durchgeführt	2020 05 03
Nächste fällige Kalibrierung	2021 05 03

## 1.12 Check point function test weights

This function helps to allocate certain test weights to the respective test points. By this way, the user can be informed which test weight has been allocated to which test point. Hereby the system ensures that only such test weights can be selected whose allowed OIML tolerance is less than the allowed tolerance of the respective test point.



In the menu click the button „Test weights“. If no test weights have been



created yet, in the menu click the button „Create test weights“.

The screen to create a new test weight appears. Fill out the fields and enable the calibration function if required:

**Prüfgewicht erstellen**  
Neue Prüfgewichte hinzufügen

ID oder Kennzeichnung\*  
KGP-10K

OIML-Klasse  
F2

Nenngewicht  
10 kg

Untere Toleranz\*  
160

Einheit\*  
mg

Obere Toleranz\*  
160

Einheit\*  
mg

Bemerkung  
Bitte eingeben Bemerkung

Wählen  
Kalibrierungsfunktion

Kalibrierungszeitraum\*  
3 Monate

Erste Kalibrierung (yyyy-mm-dd)\*  
2020-05-12

Tatsächliche konventionelle Masse\*  
10

Einheit\*  
kg

Letzte Kalibrierung (yyyy-mm-dd)\*  
2020-10-08

Then click the button „Save“. Now the new test weight for this balance is created. To test or to change the entered data, click the field of the test weight.

ID oder Kennzeichnung  
KGP-10K

Nenngewicht  
10 kg

OIML-Klasse  
F2

The data of the test weight are displayed and can be edited, saved again or deleted by the buttons below.