KERN & Sohn GmbH
Ziegelei 1
72336 Balingen-Frommern
Germany

www.kern-sohn.com
+0049-[0]7433-9933-0
+0049-[0]7433-9933-149
info@kern-sohn.com

Operating instructions
Dot matrix printer

KERN YKT-01

Type TYKT-01-A

Version 1.0

2024-10

GB

TYKT-01-A-BA-e-2410

GB

KERN YKT-01
Version 1.0 2024-10
Operating instructions
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Contents

1 Technical data

KERN	YKT-01
Item number / type	TYKT-01-A
Pressure	Thermal, line-type head
Number of chars per line (ASCII)	24
Print speed	1.7 lines / sec
Print density	15
Lifetime	1 million lines
Character listing	ASCII
Interface	RS232
Paper	in a roll, width 57 mm
Max. Reel diameter	50 mm
Input voltage device	12 V, 1.5 / 2 A
Input voltage power supply unit	100 V - 240 V
Operating temperature	5 °C ... 45 °C
Air humidity	10 % ... 80 %
Dimensions	226 x 128 x 85,5 mm (L x W x H)
Weight	760 g (printer only)

2 Declaration of Conformity

You can find the current EC/EU Declaration of Conformity online at

www.kern-sohn.com/ce

3 Unpacking

Scope of delivery:

- Printer
- Power supply unit
- Configuration cable
- Paper roll
- Operating instructions

If any of the items listed above are missing, please contact your dealer immediately.

4 Basic Information (General)

4.1 Proper use

The printer you have purchased is designed to print the weight of the material being weighed. It is intended to be used as an accessory to our printers.

4.2 Improper Use

Do not use the printer in an explosive environment. The printer is not explosion proof.

Do not modify the structure of the printer. Doing so may destroy the printer.

The printer may only be used under the described conditions. Any other use must be approved in writing by KERN.

4.3 Warranty

Warranty claims shall be voided in case:

- Our conditions in the operation manual are ignored
- The appliance is used outside the described uses
- The appliance is modified or opened
- Mechanical damage or damage by media, liquids, natural wear and tear
- The appliance is improperly set up or incorrectly electrically connected

4.4 Safety Warning

- The printer’s power-adapter is incompatible with other equipment. Please don’t connect it with other equipment to avoid any possible damage. Meanwhile, please don’t use another power-adapter to supply the printer.
- The printer in accordance with EC directives and other international requirements and standards, safety and regulatory requirements about electronic equipment, electromagnetic compatibility and electrical equipment. However, the improper operation may cause damage.
- If there is a visible damage to the equipment or cable, please unplug the power, and ensure safety before further use.
- Please remove the power-adapter before connecting or disconnecting any peripheral devices or cables.
- This equipment can only be repaired by trained professionals.
- Don't use the equipment in the places where with water splatter; The protection in dust environment is needed.
- Don't use the equipment in a chemical corrosive, high temperature, high humidity and vibration environment.
- Don't use the equipment in hazardous areas.

Only work with the printer at workstations with following ambient conditions:

- Temperature: 5°C - 45°C
- Humidity: 10 - 80 % (without condensation)

Observe the following at the installation site:

- Dust and moisture-free
- Avoid placing the printer next to strong heat sources
- Avoid placing the device within range of strong electrical, magnetic, electromagnetic and impulse fields and surfaces that accumulate electrostatic charges
- Avoid direct exposure to sunlight, shocks or vibrations

Power must be supplied via the external power supply unit. The printed voltage value must match the local voltage. Only use original KERN power supply units.

5 Basic Safety Precautions

5.1 Pay attention to the instructions in the Operation Manual

Carefully read this operation manual before setup and commissioning, even if you are already familiar with KERN products.

5.2 Personnel training

The appliance may only be operated and maintained by trained personnel.

6 Transport and storage

6.1 Testing upon acceptance

When receiving the appliance, please check the packaging immediately and the appliance itself when unpacking for possible visible damage.

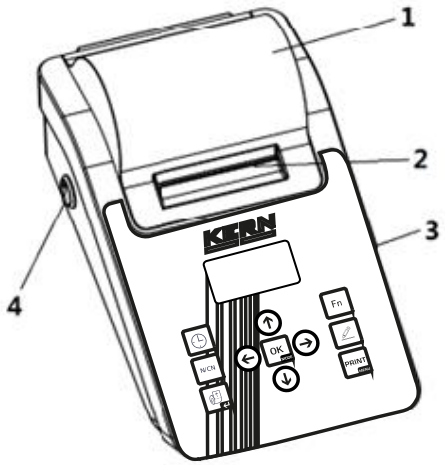
6.2 Packaging

- ⇨ Keep all parts of the original packaging for a possibly required return.
- ⇨ Only use original packaging for returning.
- ⇨ Prior to dispatch disconnect all cables and remove loose/mobile parts.
- ⇨ Reattach possibly supplied transport securing devices.
- ⇨ Secure all parts such as the glass wind screen, the weighing platform, power unit etc. against shifting and damage.

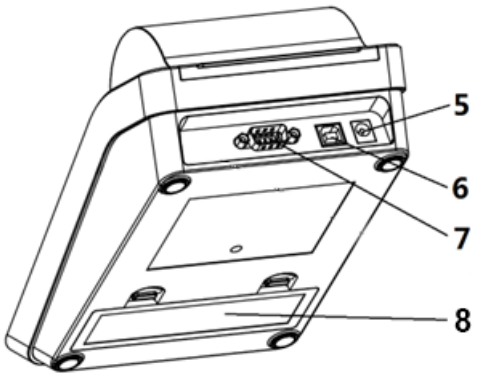
7 Device overwiew

7.1 Components

Front side:



Back side:



Pos.	Designation
1	Paper cover
2	Paper cutter
3	Operation interface
4	Power Switch
5	Power jack
6	USB device interface
7	RS232 interface
8	Battery compartment

7.2 Keyboard overview

Button	Name	Function in standby mode	Function in operating mode
	[CLOCK]	➢ Print current date and time ➢ If pressed long the clock settings menu is being opened	
N/CN	**[N/CN]**	➢ Enable or disable the numbering function. ➢ If pressed long the number is being reseted to “000”.	
	[FEED]	➢ Feed the paper	➢ Back
F	**[F]**	➢ Enable or disable the automatic tare function	➢ Opens Functions of the current operating mode
	[INPUT]	➢ Switch input method	➢ Edit custom variables such as sample name and lot number
	[PRINT]	➢ Prints actual value ➢ If pressed long the settings menu is being opened	➢ Input character
OK MODE	**[MODE]**	➢ Choose operation mode ➢ If pressed long the user login / logout operation is being executed	
	[↑]	➢ Select the previous item	
	[↓]	➢ Select the next item	
	[←]	➢ Select the left item	
	[→]	➢ Select the right item	

7.3 User Interface

The figure below shows the power-up and start-up of the printer (hereafter referred to as the "standby interface"):

In this example, the operating mode is "Statistics".

The status bar shows the most frequently used status. The contents of the status bar may not be the same in different modes. The following are common status icons:

NAME	Sample name / lot number printout.
000	Used in statistical and other modes to indicate the number of weighings.
O/T	Enable Auto-tare.

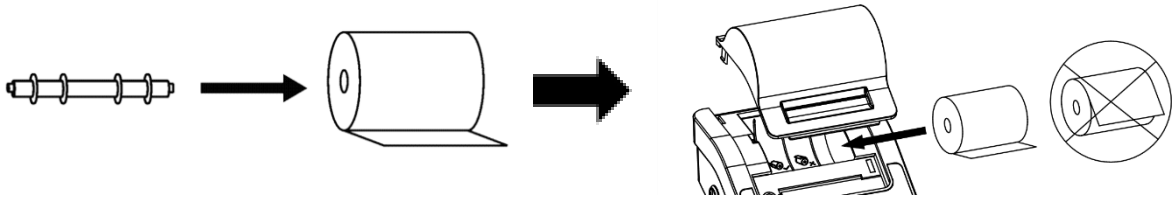
Mode: Displays the currently selected mode

Time: Displays the current date and time; in most modes, the time location always displays the current time.

8 Preparing the printer for work

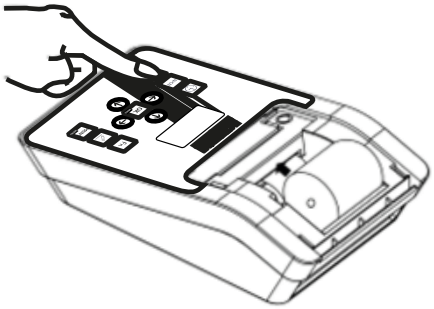
8.1 Preparing the paper

1. Insert the printing paper shaft into the center of the paper roll



2. Put the paper into the paper slot in correct position.

Note: Keep pressing **[FEED]** while inserting the printer paper end into the slot of the printer mechanism. Feed the paper until the end comes out.

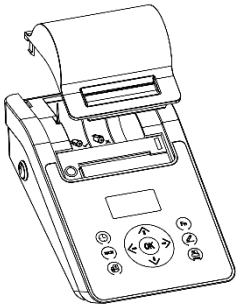


3. Tear off excess paper with the cutting strip

i	The old paper roll should be removed before installing the new paper roll. The paper left can be removed by pressing **[FEED]**, if it is short enough or been cut to short enough

8.2 Check/Install the Ink Ribbon Cartridge

The ink ribbon has been installed in the printer before shipping, but during transportation, vibration may cause the ribbon to become loose. Before using the printer for the first time, please open the paper cover, check whether the ribbon is loose, if there is a loose, use your finger to press the ribbon on both sides and make it flat.



If the ribbon is not installed, please use the following method to install the ribbon.

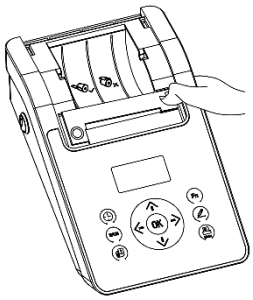
With the printer facing you, first place the ink ribbon cartridge on the gear shaft on the left side of the mechanism, lift the right side slightly, if the left side of the ink ribbon cartridge does not reach the bottom, press the knob of the ink ribbon cartridge and turn it slowly in the direction indicated by the arrow. When the left side reaches the bottom, press the right side firmly so that it also reaches the bottom. Check that the ribbon cartridge is installed correctly. Rotate the knob if the ribbon is bent or out of the ribbon cassette, then press the [Back] key to flatten and tighten the ribbon and feed the paper into the ribbon cassette. Replace the front cover to complete the installation.

Note

The installed ribbon should be in the front of the paper, otherwise the printer won't be able to print. To avoid this problem, we recommend installing the ribbon cartridge before installing the print paper.

If the core of the ribbon is wrinkled, please pull out the ribbon and then turn the pinion to tighten the ribbon, making sure the core is flat.

Replace the ribbon cartridge when the print becomes unclear and weak. Open the paper cover. Remove the ribbon cartridge by pressing the right end marked "Push" as shown in the figure below. Insert the new cartridge from the top.

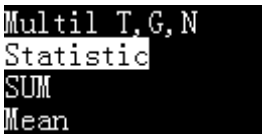


i	Do not use a damaged ribbon or unspecified ribbon as this will cause the mechanism to jam, reduce the life of the ribbon and void the warranty.

9 Operating modes

To meet the different application requirements, the printer is set up with several operating modes. The report styles of these modes are different. This chapter explains the usage and report styles of the different modes.

Press the **[MODE]** key in the operation panel, the display shows the available modes as shown below:



Press **[↑]** or **[↓]** key to select the desired mode, and press **[MODE]** key to confirm.

9.1 Print Report

Press the **[PRINT]** key on the printer or on the scale to print the report. Depending on the output setting of the scale, it may be necessary to wait for the data to stabilise after pressing the print key.

9.2 Direct mode

In this mode, the scale data is printed directly.

This mode is typically used in the following scenarios:

- To print the calibration report of the balance. The calibration report must not contain any changes. In other modes, the printer automatically adds or filters information.
- If you want the scale to decide the format of the output report.
- If a problem occurs in other modes. Direct mode can be used to observe the original data to facilitate analysis and problem solving.

Operation:

1. Refer to section 9 and select 'Direct mode'.

2. Press the print key on the balance or the **[PRINT]** key on the printer.

3. If necessary, press the **[FEED]** key to load paper.

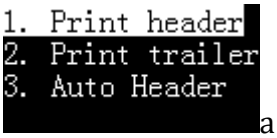
In Direct mode, the header and trailer can be added manually or automatically. For information on the header and trailer, see section 11.1.

The automatic header and trailer functions are typically used in the following scenarios:

- The information output by the scale lacks the necessary content, such as manufacturer information, model, S/N, signature, etc.
- To add a sample name / lot number and other information to the report.
- To add a controlled time / date and other information to the report.

9.3 Manually print the header and trailer:

In the "Direct mode", when the **[F]** key is pressed, the following list appears:



a

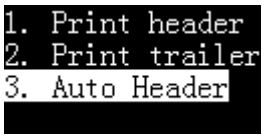
1. **Print header**: Select once, print header once manually.
2. **Print trailer:** Select once, print trailer once manually.

i	The GLP-compliant report contains information such as the manufacturer, model and serial number of the weighing instrument, which is printed in the header. For most balances, the printer can automatically recognise this information. For scales that cannot be automatically recognised, the user must set this information once. The information is saved when the power is turned off.

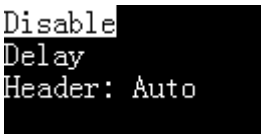
9.4 Automatic print header and trailer:

In "Direct Mode", the printer can automatically add a header at the beginning of the data output from the scale, and automatically or manually add a trailer at the end.

Press the **[F]** key and select "3. auto header" as shown in the figure below:



Press the **[OK]** key:



Disable:

- If you disable the auto header & trailer function, only the data output from the scale will be printed.

Delay:

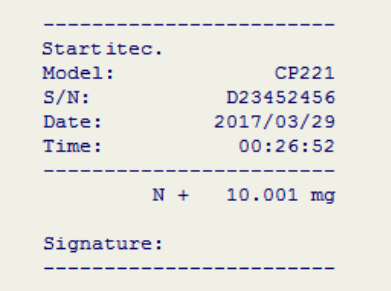
- Select this option and the printer will ask for a delay time. When the printer receives the first data from the scale, it will automatically add a header. If the scale stops outputting data after the delay time set by this option, the printer will automatically add a trailer; after the trailer has been output, the printer will repeat the above process. This is suitable when the scale continuously outputs all data.

Header: Auto

- Select this option and the printer will automatically add a header before the first data output from the scale, the user must manually press the **[OK]** key to output the trailer, this is suitable for the user to decide when to output the trailer and end the report.

9.5 Weighing mode

In this mode, you only need to press the print key once to generate a weighing report that meets GLP requirements. The header is added before the weighing data, and the trailer is added after the weighing data, as shown in the following figure:



Operation:

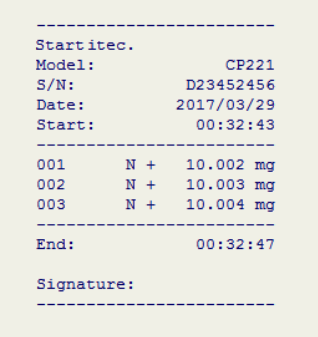
1. Press the **[MODE]** key and select "Weighing Mode".
2. Place the sample on the balance and when the data is stable press the **[PRINT]** key, the printer will automatically print a full report.

Memo:

If you want to modify the format of the header or trailer, please refer to Section 11.1.

9.6 Multi weighing mode

This mode differs from the "weighing mode" in that it can output multiple data in one report. The report style is as follows:



```
------------------------
Start itec.
Model:              CP221
S/N:            D23452456
Date:           2017/03/29
Start:            00:32:43
------------------------
001       N +    10.002 mg
002       N +    10.003 mg
003       N +    10.004 mg
------------------------
End:              00:32:47

Signature:
------------------------
```

Operation:

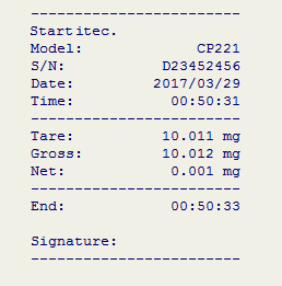
- Press the **[MODE]** button and select "Multi Weighing".
- Place the sample on the balance and when the data is stable, press the **[PRINT]** button.
- Repeat the previous step until all samples are weighed, press the **[MODE]** button to finish and print the trailer.

Memo:

- If you want to modify the format of the header, trailer and weighing data, please refer to Section 11.1.
- When the number of data reaches two or more, you can press **[F]** to print the statistical report and end. This operation is equivalent to Section 9.9 "Statistic Mode".

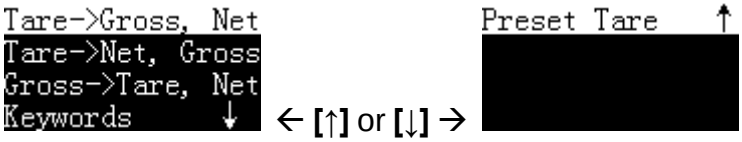
9.7 Tare, Gross, Net Weight Mode

In this mode, the printer can print tare, gross and net weights as shown below:



First, press the **[MODE]** key to select the "Tare, Gross, Net" mode. Then return as shown below:

In this mode the printer supports 5 different working modes. When the **[F]** button is pressed, the following list appears:



The following is a description of each mode:

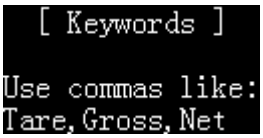
1. **Tare → Gross, Net**: In this mode, the first data output from the scale is treated as tare weight, the second data is gross weight and the printer automatically calculates the net weight. Note that in this mode, once the tare weight has been output, the tare operation must not be performed, otherwise the printout will be incorrect.
2. **Tare->Net, Gross**: In this mode, the first data output from the scale is processed as a tare weight, after receiving this data the printer immediately sends a tare command to the scale and the scale is automatically tared; the second data output from the scale is processed as a net weight, the gross weight is automatically calculated by the printer. Note: In this mode, the scale must be tared after outputting the tare weight. If not, the scale must be tared manually, otherwise the printout data will be incorrect. The reason for not being able to automatically tare may be that the scale does not support the tare command, or the tare command set by the printer is incorrect. See Chapter 11 "Communication Interface".
3. **Gross->Tare, Net**: In this mode, the first data output from the scale is processed by the printer as gross weight, the second as tare weight, and the printer automatically calculates the net weight. This mode is normally used to weigh the gross

weight first, then weigh the tare weight after the material has been poured out, and then calculate the net weight.

4. **Keywords**: In this mode, the tare, gross and net weight data are all output from the scale. The user sets the characteristic keywords of the tare, gross and net weights. The printer determines the tare, gross and net weights according to the characteristics in the received data. For example, the scale outputs the following data:

   Gross: 100.00 kg
   Net: 60.00 kg
   Tare: 40.00 kg

In this mode, press **[OK]** key to set the keywords required by the printer, as shown in the following figure:



Keyword settings follow the following rules:

- In the order of tare, gross and net weight, use commas as separators. The above example can be set to "Tare, Gross, Net" (note that "" is not included), which means that the keyword for tare weight is "Tare", which contains the data of the "Tare" string will be considered as tare weight, and so on, the keyword for gross weight is "Gross", and the keyword for net weight is "Net".
- The case must match the output data of the scale.
- The length of the keyword must not exceed 16 characters, including the comma.
- It is necessary to ensure that the keywords of tare, gross and net weight are unique in the data output by the scale, i.e. they appear only once.
- The printer does not limit the order of tare, gross, and net weight output from the scale. After all the data is matched, the report is put out.

The printer checks if the data output from the scale is in accordance with the formula:

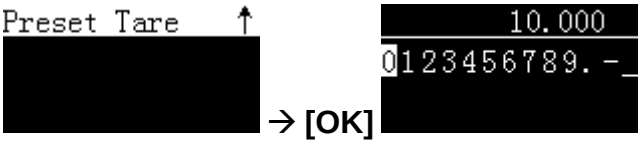
$$gross\ weight = tare\ weight + net\ weight$$

otherwise the printer will not accept the data.

After receiving the first adjustment data, the printer requires all adjustments to be completed within 2 seconds, otherwise all adjustment results will be cleared and the adjustment will be restarted, i.e. the tare, gross and net weight data output from the scale must be completed within 2 seconds.

If a problem occurs, you can temporarily use the "direct mode" to determine the keywords of tare, gross and net weight and confirm that the data output from the scale meets the above requirements, and then set the keywords correctly.

5. **Preset Tare**: In this mode, the operator enters the tare weight manually, the data output from the scale is processed by the printer as gross weight and the net weight is calculated automatically by the printer. After selecting this mode, the printer will ask for the tare weight as shown below:



When the entry is complete and returned, the interface displays the preset tare value entered, as shown below:

9.8 Multi Tare, Gross, Net mode

This mode is similar to paragraph 9.7 "Tare, Gross, Net Mode" except that

- Multiple tare, gross and net weights can be printed on a single report.
- The tare, gross and net weights can be totalled and a minimum and maximum calculated.

The output report style is as follows:

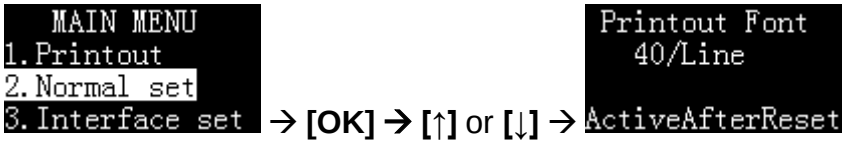
```
Model:              HR120
S/N:             D23452456
Date:           2020/02/23
Time:             20:38:16
Sample:             jjj345
Lot No.           20190107
-------------------------
No. T(mg)  G(mg)  N(mg)
1   10.000 10.001 0.001
2   10.002 10.003 0.001
3   10.004 10.005 0.001
Sum 30.006 30.009 0.003
Min 10.000 10.001 0.001
Max 10.004 10.005 0.001
-------------------------
End:              20:38:20

Signature:
-------------------------
```

Operation:

- Press the **[MODE]** key and select "Multil T, G, N" mode.
- Refer to Section 9.7 for operation.

Memo: Since the tare, gross and net weights are printed on the same line, there may be a gap in the printout. If this happens, it is recommended to change the printer "Printout Font" from "20 characters/line" to "40 characters/line" as shown below:



9.9 Statistic mode

In this mode, up to 999 data can be statistically calculated and the average, standard deviation, deviation coefficient, sum, minimum, maximum and difference can be output. Users can decide which statistical items are required by setting. The calculation process uses 64-bit double precision floating point numbers with no visual errors. The report format is as follows:

```
------------------------
Startitec.
Model:              CP221
S/N:            D23452456
Date:           2017/03/29
Start:            01:36:18
---------<STAT>---------
001       N +    10.021 mg
002       N +    10.022 mg
003       N +    10.023 mg
--------<RESULT>--------
n                       3
x̄               10.0220 mg
s              0.001000 mg
srel           0.009978  %
total            30.066 mg
min              10.021 mg
max              10.023 mg
Diff              0.002 mg
------------------------
End:              01:36:21

Signature:
------------------------
```

Operation:

- Press **[MODE]** key and select "Statistic mode".
- Place the sample on the balance and when the data is stable, press the **[PRINT]** key, the printer will print the sample weight and add it to the statistics queue.
- Repeat the previous step until all samples are weighed, press the **[MODE]** key to finish and print the report.

The output items of the statistical report are listed below:

Symbol	Statistical items	Description
n	Measuring time	
$\bar{x}$	Mean value	= total / n
s	Standard deviation	= sqrt($\sum$(Xi-Mean)^2/(n-1)) Xi: every weight data
srel	Coefficient of deviation	= (s / $\bar{x}$) * 100%
total	Sum	
min	Minimum value	
max	Maximum value	
Diff	Difference	= max - min
AD	mean deviation	= (Σ|xi- $\bar{x}$|) / n xi: every weight data
RAD	Coefficient of mean deviation	= (AD / $\bar{x}$) * 100%
Min DR	minimum deviation	= (min – $\bar{x}$) / $\bar{x}$ * 100%
Max DR	maximum deviation	= (max – $\bar{x}$) / $\bar{x}$ *100%

Item	Default	Options	Memo
Print mean variation in STAT.	×	√,×	Output the difference between each weight and the average, expressed as a percentage.
Print number in STAT. report	√	√,×	Output the number of weight data, indicated by "n".
Print mean value in STAT.REP.	√	√, ×	Output the mean value, indicated by "□x".
Print standard deviation.	√	√, ×	Output the standard deviation value indicated by "s".
Print variation coefficient.	√	√, ×	Output the value of the coefficient of variation, indicated by "srel".
Print mean deviation in STAT.	×	√, ×	Output the value of the mean deviation, indicated by "AD".
Print mean DEV. Coefficient.	×	√, ×	Outputs the mean deviation coefficient value indicated by "RAD".
Print sum value in STAT. REP.	√	√, ×	Output total value, indicated by "total".
Print minimum in STAT.report	√	√, ×	Output minimum value, indicated by "min".
Print minimum deviations.	×	√, ×	Output minimum deviation value, indicated by "min DR".
Print maximum in STAT. report	√	√, ×	Output maximum value, indicated by "max".
Print maximum deviations.	×	√, ×	Output of the maximum deviation value indicated by "max DR".
Print difference in STAT.REP.	√	√, ×	Read the difference between the maximum and minimum values, indicated by "diff".
Maximum number of statistics	999	2～999	When the weighing times reach this set value, the statistical report is automatically printed and ends.

9.10 SUM Mode

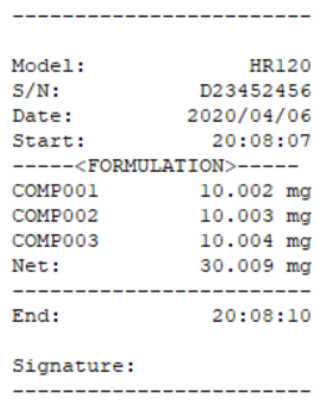
Calculate the summation of several samples (up to 999). Only summation value is printed in this mode, with the same format and operation as in statistic mode, please refer to Section 9.9.

9.11 Mean Mode

Calculate the mean value of several samples (up to 999). In this mode only the mean value is printed, with the same format and operation as in Statistics mode. Please refer to section 9.9.

9.12 Formulation Mode

When printing a report with multiple components, the total net weight of each component is printed. The print example is shown in the figure below:



Operation:

- Press **[MODE]** key and select "Formulation" mode.
- Weigh the first component, press the print key, the printer outputs the weight of a component.
- After weighing all components, press the **[MODE]** key, the printer outputs the total weight and ends.

10 Configuration

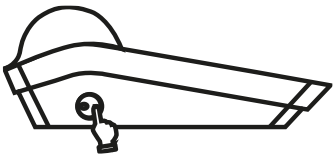
10.1 General notes on configuring the printer

Software is required to configure the printer. You can obtain the software at:
www.kern-sohn.com

10.2 Preparation

Please choose and install the proper power adapter converter according to the located country/region.

10.3 Set operating langugae

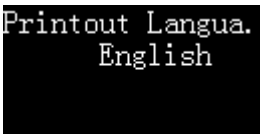


⇨ Turn on the printer

⇨ Select the desired language and confirm

⇨ Open the main menu and select printout

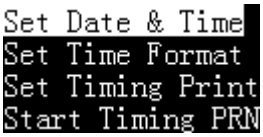
⇨ Select others



⇨ Select the desired language and confirm

10.4 Set time

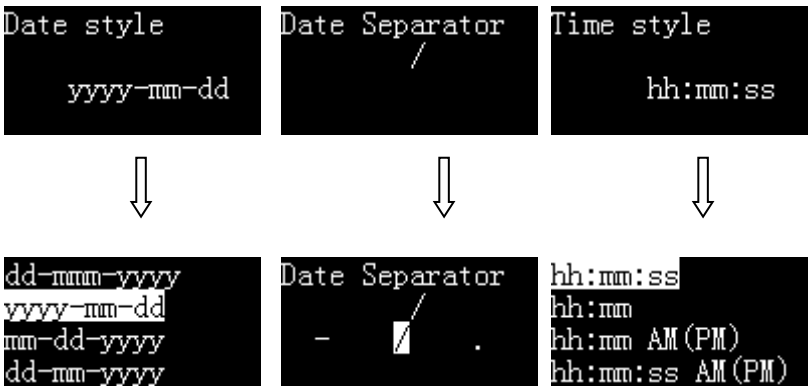
⇨ Press and hold **[CLOCK]** to enter the time setting menu



⇨ Select Set Date & Time

⇨ Press **[↑]** and **[↓]** to adjust the value, press **[←]** or **[→]** key to change the input position. After the adjustment is completed, press **[OK]** to confirm and skip to the next item.

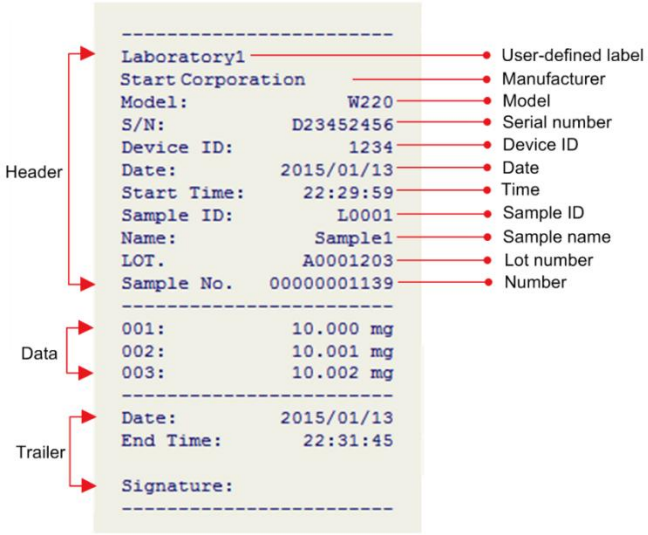
⇨ After setting the time, press **[FEED]** to return



11 Advanced Features

11.1 Report Style Settings

The printer allows the user to set the style of the printer output report as required. The following is a report style that conforms to the GLP specification:

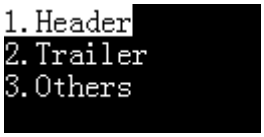


The printer allows the user to set the header, data, and trailer styles in the report, allows each output item to be turned on and off, and can set the content of each output option.

Long press the **[MENU]** key to enter the setting menu, as shown below:

Note: If an administrator password is set, you need to enter the correct password before entering the menu.

Select "1. Printout" and press the **[OK]** key to confirm, as shown below:



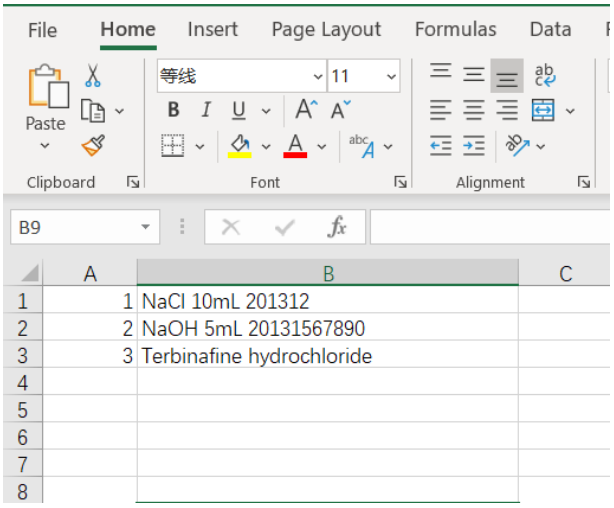
The user can set the header, trailer and other output options separately.

11.2 Code Input Method

When there is a lot of input information, using the code input method will greatly simplify the operation. With EXCEL, create a table containing the correspondence between the digital code and the name, and then import this table into the printer through the printer software. When you need to print the name, just Enter the corresponding code. The operation method is as follows:

1. **Prepare the table:**

   First, use EXCEL to create a table containing codes and names, as shown in the following figure:



   If the most significant digit of the code contains "0", such as "001", the column where the code is located must use text format, not numeric format, otherwise, EXCEL will automatically remove the zero in front of the code, resulting in incorrect coding.

   After making the table, save as "CSV" format.

   In order to check whether the table's format is correct, you can use Notepad to open it, the correct format should be similar to the following:

```
1,NaCl 10mL 201312
2,NaOH 5mL 20131567890
3,Terbinafine hydrochloride
```

   The code and the name are separated by a comma. You can also use Notepad to edit this table and change the file extension to CSV.

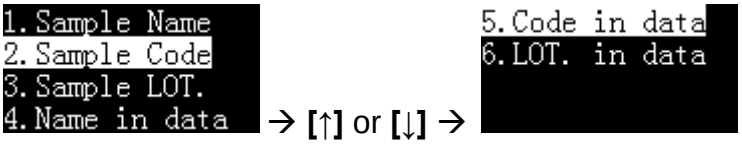
2. **Import the table:**

   Use the printer software to import the prepared table into the printer.

   Note: When a new table is imported, the original table will be overwritten.

3. Use code input method:

Press the **[F]** key at the standby interface, the following list is displayed:



2. Sample Code:

Enter the code, and the header outputs the sample name corresponding to the code.

3. Code in data:

Enter the code and output the name corresponding to the code in front of the weighing data.

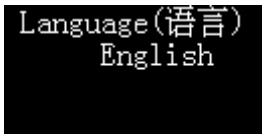
If necessary, select "2. Sample Code" or "5. Code in data" and press the **[OK]** key, as shown in the following figure:

Enter the code, the corresponding name is displayed at the bottom of the screen and press the **[OK]** key to exit.

11.3 Administrator Password Setting

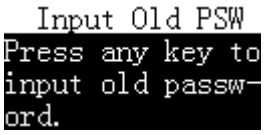
To prevent unauthorised changes to the time and other important settings, a 6-digit password can be set. Press and hold the **[MENU]** key to display the Setup menu. If a password is currently set, the correct password must be entered first. Select "Normal Setting" and switch to "Password" as shown below:

[OK]→

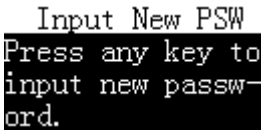


[↑] or **[↓]→**

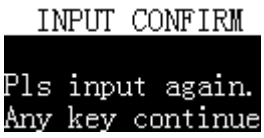
Press the **[OK]** key. If the password has been set before, the printer will ask for the current password, as shown below:



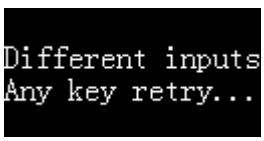
After entering the correct password, the printer asks for a new password, as shown below:



Press any key, and then enter the new password. The maximum length is 6 digits. To confirm the entered password, after the input is completed, the printer requests to enter it again, as shown in the following figure:



The password entered twice must be the same, otherwise screen shown in the figure below will be displayed:



In this case, follow the prompts to restart the setup.

Note:

- If the password entered is blank, password protection will be cancelled.
- Please remember to save your password to avoid forgetting it.

11.4 Authority Management

The printer supports two levels of user rights management: administrator rights and user rights. The administrator has the highest authority and can not only operate the printer, but also set the printer completely, including adjusting the time. The printer only allows one administrator. The user authority can only use the printer to perform printing operations and cannot modify the parameters including time. One printer supports up to 150 users. If you do not set administrator rights, the printer will be used without restrictions, and all settings can be modified without restrictions; if you do not set user rights, the printer will be used without restrictions, but any settings are required enter the administrator password.

For the setting of administrator authority, please refer to Section 11.2 "Administrator password setting"; for the user authority, please refer to Section 11.5 "User Login and Electronic Signature".

Note: If you need to set user permissions, you must first set the administrator password.

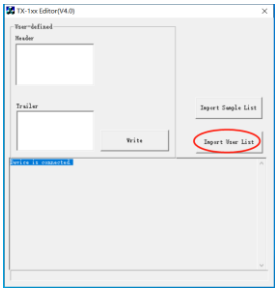
11.5 User Login and Electronic Signature

In order to prevent unauthorized operation of the printer, you can set a login password for each user. Before using the printer, you must enter the login password, otherwise you cannot use the printer. After the user enters the correct login password, the printer can output the username in the signature position of the trailer.

Preparation:

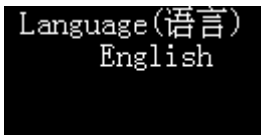
Please refer to Section 11.2 to set the administrator password first.

Now, you need to prepare an EXCEL table that contains each user's login password and corresponding username. The password must contain 6-digits. The password and the name are separated by a comma (e.g. 123456,user). After completion, run the TX Editor software, click "Import User List", select the prepared CSV file, as shown below:

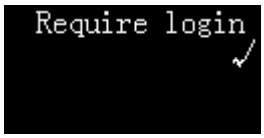


If an administrator password is set, the software will ask for a password when importing.

After importing the user list, make the following settings on the printer:

→**[OK]**→


→**[↑]** or **[↓]**



Login operation:

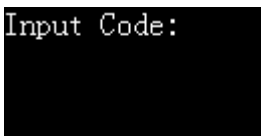
After the above operations are completed, the printer displays the following in the standby interface:

The login status of the display is "Login Please".

At this time, the printer's operations except the following will be prohibited:

- Press **[FEED]** key to feed paper.
- Press **[OK]** key to enter the login password.
- Press and hold the **[MENU]** key to enter setting menu (administrator password required).

Press **[OK]** key, the printer displays the following information, asking for the login password:



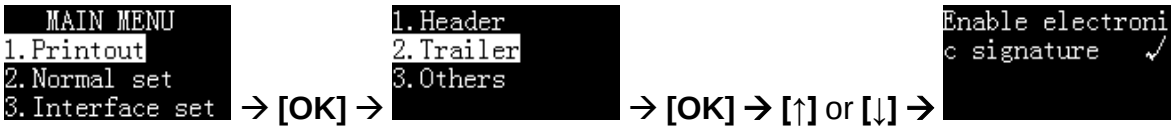
After entering the correct login password, the display shows the current working mode, at this time, the printer can perform normal printing operations.

Log-out:

After completing the operation, you must log out in time to avoid the next user using the printer without logging in. Long press the **[OK]** key, when prompted to enter the code, without entering any information, directly press the **[OK]** key to log out, at this time the display screen login state returns to the "Login Please" state. When the printer enters the screen saver because it has not been operated for a long time, it will also automatically log out. For screen saver time, please refer to Section 12.1.2.

Electronic signature:

If you wish to print the logged-in username in the trailer signature column, please set up the printer as follows:

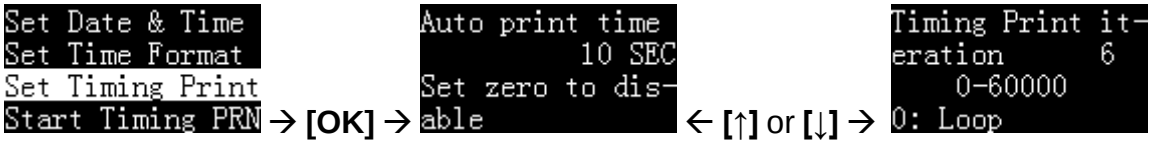


11.6 Automatic Timing Print

This function allows the printer to automatically acquire data at specified intervals and repetitions. This function is particularly useful when you want to continuously monitor changes in the weight value. This function can be used in any mode.

Set the timing print parameters

In standby status, long press **[DATE]** key then select “Set Timing Print”, as below:



Set the desired printing interval time and iteration times.

Note: If you want to output continuously, please set the iteration time to 0.

Start printing

After the parameter setting is completed, press the **[FEED]** key to return, as shown in the following figure:

Select "Start Timing PRN", then press **[OK]** to start interval printing:

The display of the printer is shown below:

The bottom of the display shows the remaining times and the countdown time for the next printing.

When the number of repetitions is set to 0, the remaining number of times will be set to infinity, as shown in the following figure:

When the countdown becomes "00:00:00", the printer will automatically print once, and the remaining number “N” will automatically decrease by 1. When it decreases to 0, the interval printing will automatically stop.

Manually stop timing printing

When the timing printing is working, long press the **[DATE]** key, the printer displays as shown below:

Select "Stop Timing Print", and then press **[OK]** to confirm.

11.7 Automatic Tare

If you enable this function, the printer will automatically control the balance to perform the tare operation after receiving valid weight data. From the standby screen, press and hold the **[F]** key to turn automatic tare on or off. The status is displayed in the upper right corner of the screen as shown below:

Automatic tare on

Automatic tare off

Automatic taring requires that the balance supports two-way communication and accepts the commands sent by the printer. At the same time, the printer must set the correct tare command. Please refer to section 13.4 "Custom tare command" and to the instrument manual to set the correct tare command.

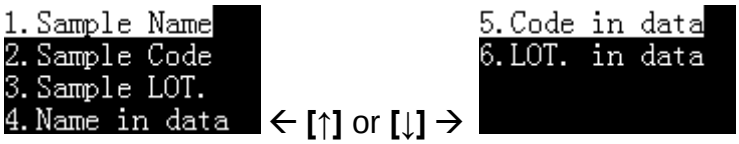
11.8 Print Sample Name / Lot Number

The sample name / lot number can be printed in the header or data, or both, as shown below:

```
Model:              HR120
S/N:            D23452456
Date:           2020/04/11
Start:            21:41:43
Sample:               NaCl
Lot No.        B201203456
------------------------
001  H2O        10.014 mg
002  Cl         10.015 mg
003  NaOH       10.016 mg
------------------------
End:              21:42:15

Signature:
------------------------
```

The sample name can be up to 40 characters and the sample batch number can be up to 24 characters. Press **[INPUT]** key, the display is as shown below:



← **[↑]** or **[↓]** →

1.Sample Name: Print the sample name in the header, select this item and press **[OK]** key to enter. If the input content is empty, the sample name will not be printed; if you want to output the sample name with empty content, you can enter a space.

2.Sample Code: Use the code input method to input the sample name and print it in the header. You only need to enter a simple numeric code to output the corresponding sample name. Please refer to Section 11.2 “Code Input Method".

3.Sample LOT.: Print a lot number in the header. If the input content is empty, the lot number will not be printed; if you want to output the lot number with empty content, you can enter a space.

4.Name in data: Output the sample name in front of the weighing data, it will only be printed once, if necessary, please enter the sample name before each weighing.

5.Code in data: Use the code input method to input the sample name and print it in front of the weighing data. You only need to enter a simple numeric code to output the corresponding sample name. Please refer to Section 11.2 “Code Input Method". It will only be printed once, if necessary, please enter the sample name before each weighing.

6.LOT. in data: Print a lot number before the weighing data, it will only be printed once, if necessary, please enter the lot number before each weighing.

After entering the sample name / lot number and pressing the **[FEED]** key to return, the following icon is displayed in the upper left corner of the display:

Memo:

- The sample name / lot number printout in the header will be automatically closed after printing once, if you want to keep the printout without input, long press **[INPUT]** key when the icon NAME disappears until the icon is displayed, the printer will remain in this state until long press **[INPUT]** key again or clear the sample name and lot number.
- If the input content is empty, the sample name/lot number will not be printed, you can enter a space character and fill it out manually.
- The sample name / lot number output before the weighing data will only be printed once, if necessary, please enter it before each weighing.

12 Menu

12.1 Overview of the Main Menu

The Main Menu is seperated in three Menus. These Menus are as follows:

1. Printout
2. Normal set
3. Interface set

12.1.1 “1. Printout” settings:

The Printout settings are also seperated in 3 Menus:

1. Printout	1. Header
	2. Trailer
	3. Others

“1. Header” setting menu list:

Item	Default	Options	Memo
Print date & time at starts	×	√,×	Whether print time and date immediately after power on.
Print label at starts	×	√,×	N/A
Print label in report header	×	√,×	Whether print user-defined label in header.
Print MFGR in report header	√	√,×	Whether print manufacturer in report header.
Manufacturer		Up to 16 characters	Enter the manufacturer information here.
Print model in report header	√	√,×	Whether Print model in report header.
Device Model		Up to 16 characters	Enter the device model here.
Print SN in REP. header	√	√,×	Whether print S/N in report header.
Device SN		Up to 16 characters	Enter the device SN here.

Item	Default	Options	Memo
Print ID in REP. header	×	√,×	Whether print ID in report header, the ID is user-defined.
Device ID		Up to 16 characters	Enter the device ID here.
Print date in report header	√	√,×	Whether print date in report header.
Print time in report header	√	√,×	Whether print time in report header.
Print number in report header	×	√,×	Whether print number in report header.
Print Delimiter in report	√	√,×	Whether print separation line between header and data.

“2. Trailer” setting menu list:

Item	Default	Options	Memo
Print date in report trailer	×	√,×	Whether print date in report trailer
Print time in report trailer	√	√,×	Whether print time in report trailer
Print signature	At Trailer	No Printing At Header At Trailer Header&Trailer	Decide where to print signature.
Enable electronic signature	×	√,×	Please refer to Section 11.5
Prn user-defined in REP.trailer	×	√,×	Decide whether to print the user-defined label in the trailer. The label needs to be imported using TX Editor software.
Print time at weighing Mode	×	√,×	Whether to print time in the trailer under weighing mode.
Line feed at trailer	3	0 ~ 40	Set the number of lines the printer feeds after printing the report.

“3. Others” setting menu list:

Item	Default	Options	Memo
Batch Auto INCR	×	√,×	Whether the lot number value is automatically increased by 1 after printing.
Printout Language	English	English Chinese	Decide the language of the printout.
Characters/Line	0	0～40	Set the maximum number of characters output one line in the report. 0: Auto Other：Set by user
Printout Invalid Data	×	√,×	×：Except for Direct mode, the printer only processes valid weighing data and filters other data. For filtering behavior, please refer to Section 13 "Communication Interface" √：In all operating modes, the printer prints all received data, which means that other content output by the scale may appear in the report.
Weight data time format	None	None hh:mm hh:mm:ss	Set the time format added before weighing data. This feature is only valid in multiple weighing, statistic, sum and mean mode.
Weighing Data Decimal digits	8	0-8	8: Decimal places are determined by the scale output. 0-7：Set by this setting

12.1.2 “2. Normal set” settings:

This menu is used to set the general configuartion of the printer.

Item	Default	Options	Memo
Language	English	English / Chinese	Select interface language.
Key press beep	√	X，√	Enable or disable the key beep.
Screen save time	10 minutes	0-120 minutes	When the printer is not operated for more than the set time, the screen automatically enters the power saving mode. Set to 0: turn off the screen saver.
Screen brighten.	85	0~250	Set screen brightness.
Password		6 digits	Please refer to Section “11.2 Administrator password setting”.
Require login	X	X，√	Login required to use the printer, please refer to Section 11.5.
Time Synchroniz.	None	None	Disable
		Balance first	Use balance time instead of printer time.
		Printer low	In weighing mode, the printer time will replace the balance output time.
		Printer high	In any mode, the printer time will replace the balance time.
Hold run mode	√	X，√	X： After one mode ends, the printer automatically returns to Direct mode. √： Keep current mode.
Printout Font	24/Line	24/Line 40/Line	24/Line：24 characters are output in one line, and the font is large. 40/Line：Output 40 characters per line, the font is small. The settings must be restarted after modification to take effect.

Item	Default	Options	Memo
Enable Fast Feed	X	X，√	X： Turn off the fast paper-feeding mechanical of the mechanism, at this time the printing speed will drop by about 30%. √： Enable the fast paper-feeding mechanical of the mechanism, but the life of the mechanism will be slightly reduced.
RunMode Config	1111111111111	Each bit can be individually set to 0 or 1	Each bit corresponds to a mode of enable or disable. 0: disabled 1: enabled DIRECT…Highest bit (left) WEIGHING MULTI WEIGHING Tare, Gross, Net Multil T, G, N Statistic SUM Mean Formulation Pipette Calibrate Loss Weight Accumulate Moisture…Lowest bit (right)

12.1.3 “3. Interface Settings”:

This menu is used to set the communication parameters between the printer and the scale. The communication parameters of scale and printer must be consistent. Incorrect settings will cause the printer to not work properly.

Item	Default	Options	Memo
Baud		300,600,1200, 2400,4800, 14400,9600, 19200, 38400,57600, 115200	The communication rate, which determines the communication speed, must be consistent with the scale setting.
Data bits	8Bits	7Bits / 8Bits	The number of data bits contained in a frame of data, must be consistent with the scale setting.
Parity	None	None/ODD/EVEN	The bit used for verification, must be consistent with the scale setting.
Stop bits	1Stop	1Stop, 2Stop	The length of the bit indicating the end of the data, must be consistent with the scale setting.
Handshake	None	None, DTR/CTS, Xon / Xoff, nDTR / CTS	Data handshake protocol, must be consistent with the scale setting.
Terminate char	CR+LF	CR+LF, CR, LF, WIN, ETX,None	Indicates the end of data, which must be consistent with the scale setting.
Data output mode	Output once	Output once Continuous	Output once：Applicable to scales that press the print key once and output data once. Continuous：Applicable to scales that continuous output.
Disable Command	X	X，√	X：Normal operating mode √：It is usually used to connect instruments other than the scale, such as a PH meter.

Item	Default	Options	Memo
PRN command char		Up to 16 hexa-decimal charac-ters	Define the command to read the weight data in hexadecimal format, for example: set to 500D0A, then press the print key will issue "P CR LF", please refer to Section "13.3 Custom Print Command".
TARE command		Up to 16 hexa-decimal charac-ters	Define scale tare command, hexa-decimal format, for example: set to 540D0A, "T CR LF" command will be issued to scale during "auto-matic tare" operation, please refer to Section "13.4 Custom Tare Command".
Character Set	ASCII	ASCII GB2312	Select character set
Data Filter			Please refer to Section "13.5 Data Filtering".
Data Matching			Please refer to Section "13.6 Data matching".
Data Exclude			Please refer to Section 13.7 Data matching".
Enable Demo Mode	X	X，√	√: When the **[PRINT]** key is pressed, the printer simulates re-ceiving balance data for function demonstration. For normal use, please set to X.
Factory default			Restore factory default settings.

1.1 F menu

1. Print header		Select once, print header once manually.
2. Print trailer		Select once, print trailer once manually.
3. Auto Header	Disable	Disable the auto header & trailer function, the data output from the scale will be printed as is.
	Delay	Select this option and the printer will ask for a delay time. When the printer receives the first data of the scale, it will automatically add a header. When the scale stops outputting data beyond the delay time set by this item, the printer automatically adds a trailer; after outputting the trailer, the printer repeats the above process. This is suitable when the scale continuously outputs all data.
	Header	Select this option, the printer will automatically add a header before the first data output from the scale, user needs to manually press the **[OK]** key to output the trailer. This is suitable for the user to decide when to output the trailer and end the report.

1.2 Mode Menu

DIRECT	see chapter 9.2
WEIGHING	see chapter 9.5
MULTI WEIGHING	see chapter 9.6
Tare, Gross, Net	see chapter 9.7
Multi T, G, N	see chapter 9.8
Statistic	see chapter 9.9
SUM	see chapter 9.10
Mean	see chapter 9.11
Formulation	see chapter 9.12

1.3 Input menu

1. Sample Name	Print the sample name in the header, select this item and press **[OK]** key to enter. If the input content is empty, the sample name will not be printed; if you want to output the sample name with empty content, you can enter a space.
2. Sample Code	Use the code input method to input the sample name and print it in the header. You only need to enter a simple numeric code to output the corresponding sample name. Please refer to Section 11.2 “Code Input Method".
3. Sample LOT.	Print a lot number in the header. If the input content is empty, the lot number will not be printed; if you want to output the lot number with empty content, you can enter a space.
4. Name in data	Output the sample name in front of the weighing data, it will only be printed once, if necessary, please enter the sample name before each weighing.
5. Code in data	Use the code input method to input the sample name and print it in front of the weighing data. You only need to enter a simple numeric code to output the corresponding sample name. Please refer to Section 11.2 “Code Input Method". It will only be printed once, if necessary, please enter the sample name before each weighing.
6. LOT. in data	Print a lot number before the weighing data, it will only be printed once, if necessary, please enter the lot number before each weighing.

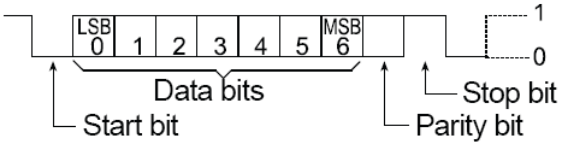
13 Communication Interface

13.1 Interface Definition

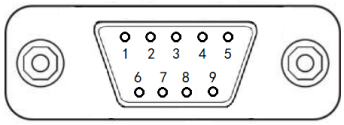
The printer interface is a standard RS232C communication interface with the following characteristics:

- D-Sub 9pin, male
- Asynchronous, bi-directional, half duplex
- Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
- Parity: None, Odd, Even
- Data bits: 7bit, 8bit
- Stop bits: 1stop, 2stop
- Handshake: None, DTR/CTS, nDTR/CTS, Xon/Xoff

The following is a data frame format of 7 data bits, 1 stop bit, and 1 parity bit:



D-Sub 9pin assignments:



Pin No.	Signal	Direction	Description
1	NC		No connection
2	RXD	Input	Receive data
3	TXD	Output	Transmit data
4	DTR	Output	Data terminal ready (Connect to pin7 internal)
5	SG		Signal ground
6	DSR	Input	Data set ready
7	RTS	Output	Request to send (Connect to pin4 internal)
8	CTS	Input	Clear to send
9	NC		No connection

For the printer's communication parameter settings, please refer to Section 12.1.3.

Handshake:

NONE	**:**	The printer and the balance can communicate at any time without flow control
XON/XOFF	**:**	When the device receives the <XOFF> control character, it stops sending data to another device until it receives the <XON> control character.
DTR/CTS	**:**	When the device is ready to receive data, the DTR pin outputs a logic low level (RS232 positive level) to notify another device; otherwise, when the device cannot receive data, the DTR pin outputs a logic high level (RS232 negative level).
nDTR/CTS	**:**	Similar to DTR / CTS, but the action level is reversed.

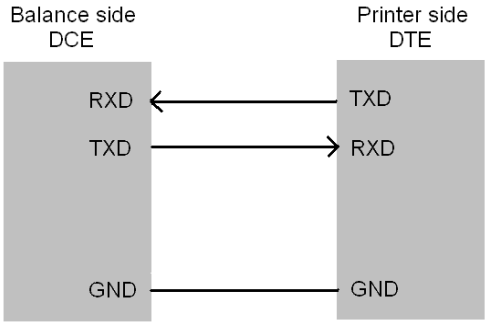
Remarks:

XON control character: 0x11 (hexadecimal format).

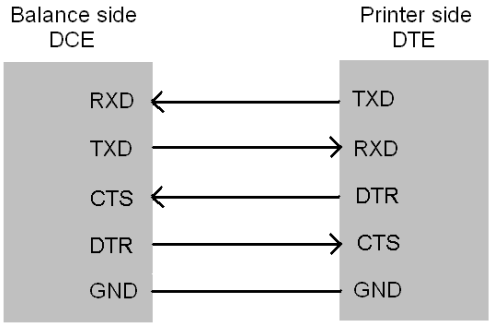
XOFF control character: 0x13 (hexadecimal format).

Connection method:

Handshake Protocol = None, XON/XOFF:



Handshake Protocol = DTR/CTS, nDTR/CTS:



13.2 Automatic Detection

The communication parameters of the printer and the scale must be fully compatible for normal operation. This function can automatically detect and set the communication parameters to be compatible with a scale. This eliminates common problems caused by incorrect communication parameter settings.

Operation:

- Make sure that the printer and scale are connected properly, and that the balance is ready for work.
- Turn off the printer's power switch. Press and hold the **[PRINT]** key and turn on the power switch. Keep holding the key until the printer begins to print the following message:

```
--------Auto-Set--------
Please send data to pri
nter,the printer will o
utput the results immed
iately,if the printer d
oes not respond,it mean
that printer does not r
eceive data.
------------------------
```

- Press the print key on the scale. If a data transfer is detected, the printer will immediately analyze the data and print out the correct communication parameters and the received data. If there is no response, please check if the connecting cable is correct.
- If the printed content is correct, press **[OK]** to accept the parameters analyzed by the printer. The printer then returns back to working mode.

Memo:

- If the automatic detection fails to recognize the data, please check whether the data cable is damaged. Replace the data cable and try again. If the printer is equipped with a different data cable or a cable adapter, try all combinations and use the " Automatic Detection " function in each combination until data is detected.
- Do not plug or unplug the data cable while the scale and printer are powered on. The plug and unplug of the data cable must be performed when the power is turned off. Otherwise, incorrect results may occur.
- When multiple results are detected, press **[↑]** or **[↓]** key to select different results.

13.3 Custom Print Command

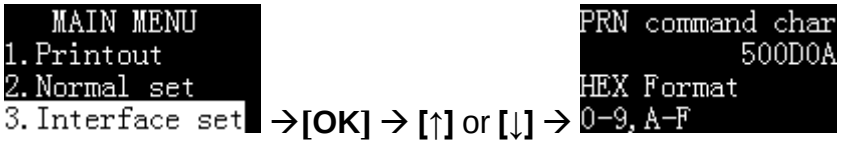
When the **[PRINT]** key on the printer is pressed, the printer issues a command to read data into the scale. This parameter is used to set the specific content of the command. The format of the parameter is hexadecimal (HEX), for example: assuming the following data read command from the scale:

P	CR	LF

The corresponding hexadecimal code is as follows:

50	0D	0A

Then this parameter needs to be set to 500D0A, as shown below:



13.4 Custom Tare Command

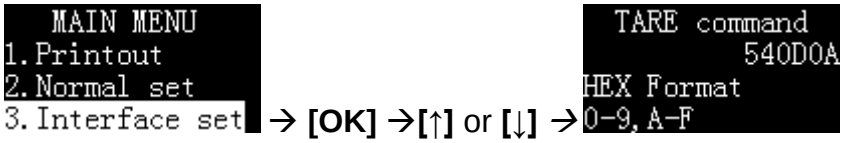
When the “Auto Tare” feature is enabled, or in the “Tare, Gross, Net weight” mode, the printer needs to send a tare command to the scale. This parameter is used to set the specific content of the command. The format of the parameter is hexadecimal (HEX), for example: assuming the tare instruction of the scale as follows:

T	CR	LF

The corresponding hexadecimal code is as follows:

54	0D	0A

Then this parameter needs to be set to 540D0A, as shown below:



13.5 Data Filtering

Except in Direct mode, the printer only processes weighing data. The printer recognises weighing data according to the following rules:

1. The rightmost character string is recognised as a unit, and there is only one. For example, valid weighing data are as follows

   N + 100.000 kg

   100.000kg

   The following weighing data is invalid, because the right side contains two strings. In this exapmle: kg and S:

   N +100.000 kg S

2. The unit length cannot exceed 6 characters.
3. The digits must be to the left of the unit.
4. The leftmost part of the value cannot be directly connected to a string. The must be at least one space.

   Tare 100.000 kg

   The following is valid weighing data:

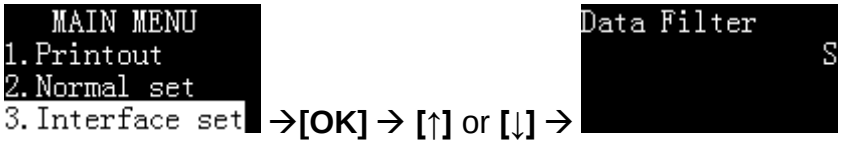
   Tare: 100.000 kg

   Tare 100.000 kg

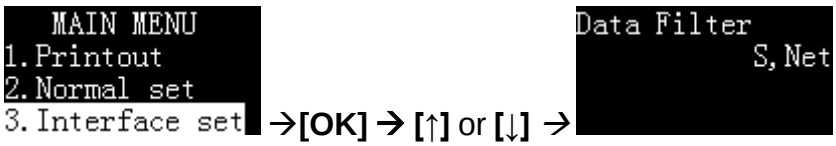
This parameter is used to filter specific content in the data transmitted from the scale. For example, suppose the scale outputs the following data

+ 100.00 kg S

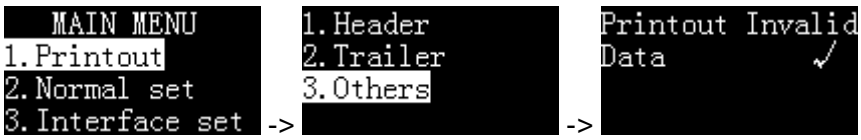
This data does not comply with rule no. 1 above, so the printer will not recognise it as weighing data and it will not work in modes other than Direct mode. In order for the printer to recognise it as weighing data, it is necessary to filter this string, at this moment you can set this parameter to "S", as shown below:



If you want to filter multiple strings in the data, you can enter them separated by commas. For example, the following setting will filter "S" and "Net" in the data.



If you want to print the filtered data, but do not want to process the data, such as adding statistical calculations, please set up the printer as follows:



Note:

- Please use this function carefully. Incorrect settings will cause the printer to not work properly.
- Please pay attention to upper and lower case when setting this parameter.
- The data filter function is invalid in the Direct mode.
- The “Tare,Gross,Net” mode and “Multil T,G,N” mode has the same item, It works and is set the same way as here, but only use for these two mode.

13.6 Data Matching

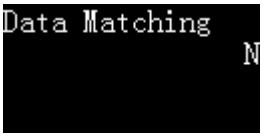
In modes other than the Direct mode, if the balance outputs several weighing data simultaneously, while you want to print only one specific data or a part of the data, you can use this parameter to adjust the specified weighing data. For example: The balance outputs the following:

+ 100.00 kg N

+ 50.00 kg T

+ 150.00 kg G

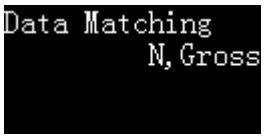
If you want to process only the data containing the "N" identifier, you can set this parameter to "N", as shown below:



Since the identifier "N" is behind the unit, it violates the first rule of weighing data identification. The printer will not accept this data as weighing data, therefore, in this example, the string "N" needs to be filtered, as shown below:

The printer always performs data matching before data filtering. This order makes it possible to match data before filtering.

To match several strings, you can separate them with commas. For example, if you want to process the data containing "N" and "Gross" as weighing data, please follow the settings below:

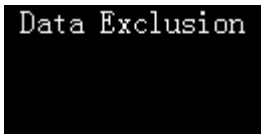


Note:

- Please use this function carefully. Incorrect settings will cause the printer to not work properly.
- Please pay attention to upper and lower case when setting this parameter.
- The data filter function is invalid in the Direct mode.
- The “Tare,Gross,Net” mode and “Multil T,G,N” mode has the same item, It works and is set the same way as here, but only use for these two mode.

13.7 Data Exclusion

In modes other than the Direct mode, if the scale outputs multiple lines of weigh data, but does not want to print a specific lines of data, you can use this parameter to exclude weigh data that contains a set string, which is exactly the opposite of the "13.6" parameter: When the output data contains a set string, the data will not be treated as weighing data, for example, it will not be statistically calculated. Similar to "data match", you can set multiple strings separated by commas. For details, see “13.6”.



Note:

- The “Tare,Gross,Net” mode and “Multil T,G,N” mode has the same item, It works and is set the same way as here, but only use for these two mode.

14 Maintenance, servicing, disposal

Disconnect the appliance from the operating voltage before carrying out any maintenance, cleaning or repair work.

14.1 Cleaning

Do not use aggressive cleaning agents (solvents or similar), but only a cloth moistened with mild soapy water. Ensure that no liquid penetrates the appliance. Wipe with a dry, soft cloth.

14.2 Maintenance, servicing

- ⇨ The device may only be opened by trained service technicians authorised by KERN.
- ⇨ Disconnect from the mains before opening.
- ⇨ Only use consumables from the original supplier.
- ⇨ Turn off the power supply after usage. Please remove the adapter/batteries if it is not going to be used for a long time.

14.3 Waste disposal

The operator must dispose the packaging and appliance in accordance with the applicable national or regional legislation at the place of use.

15 Small breakdown service

Malfunction	Possible cause
The printer does not print after pressing the print key	• The cable between the printer and the scale is not secure, please check and reconnect. • The communication parameters between the printer and the scale do not match. If the printer is equipped with different cable or cable adapter, please try all combinations and use " Automatic Detection" in each combination until data is detected. • Reset the scale to factory settings. If the scale data port is turned off or not assigned to the printer, please change the scale port settings according to the scale manual to make it available and assign it to the printer.
Print content looks light	• The ribbon has expired, please replace with a new one
Paper jam	• Cut out the spare print paper. Press **[FEED]** to take out the spare paper. Please use tweezers to take out the paper.
Printer doesn't feed paper	• There may be foreign objects in the paper feed slot of the mechanism, use tweezers to carefully remove them.
The printed content presents a mirror	• The ribbon is installed incorrectly, please remove the printing paper first, then reinstall the ribbon, and then install the printing paper after installing the ribbon.
Uneven print content	• The ribbon is not installed properly, please reinstall the ribbon. • The ribbon is wrinkled. Please remove the ribbon, pull out the ribbon core, and then tighten it again to ensure that the ribbon is not wrinkled before installing it back into the printer. • Replace the ribbon, please pay attention to not use parts from third-party suppliers.
The printing action looks normal, but nothing is printed.	• The ribbon is installed incorrectly, reinstall the ribbon.
The printed content overlaps.	• Paper jams, please refer to the above paper jam processing methods to solve. • The installation direction of the printing paper is wrong, please refer to the manual to reinstall. • Please use high-quality printing paper. • No paper shaft installed, please install paper shaft. • Please do not use thermal paper.
The printer does not power on.	• Unmatched power adapter is used, please use the power supply of the printer.
The printer prints continuously	• Change the scale output setting to single output.