

TX Serials,parameters setting form, version(compatible - HE5.0/-HE5.2-)

I. Keypad functions instruction.

O/T: Tare or eliminate/move left functions.

CAL: Calibration or incremental functions.

PRINT: Print or move right functions.

MODE: Units transfer, mode switching, or confirm functions.

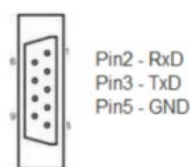
ON/OFF: Turn on or off function.

II. RS232 Interface.

In the weighing process,sometimes we need to print our the weighing data or transferring to PC or other equipment. In order to meets the users, in the backside of balance have RS232 interface, the connection method as bellow:

Balance to computer (use the system own Hype terminal or serials port assistant.)

Balance(9 pins)	Computer(9 pins)
TXD(output) 2.....	2
RXD(input) 3.....	3
GND(ground) 5.....	5



A screenshot of a serial port settings window. The settings are: Port: COM9, Baud rate: 9600, Data bits: 8, Stop bits: 1, Parity: None.

Data format: Data bit 8, stop bit 1, without parity bit, baud rate selectable, default Baud rate is 9600.

III. Communication parameters instruction.

Enter into parameters setting.

Under the off situation, hold press “PRINT”key when screen shows “SET-UP” release the key, then shows “str”

Press “CAL” choose parameter incremental, then press “PRINT” enter to next parameter, press “MODE” to confirm and exit it.

1. Str-X Print mode selection.

Str-0 Close print function.

Str-1 Continuously transmit the weighing data.

Str-2 When scale stable to transmit the weighing data.

Str-3 Press PRINT key to transmit the weighing data.(Default value.)

Str-4 When scale stable to transmit the alarm value weighing data.

Str-5 Command to transmit the weighing data.

PC sends capital letter U, that means do the Units transfer operation to scale.

PC sends capital letter T, that means do the Tare operation to scale.

PC sends capital letter Z, that means do the Zero operation to scale.

PC sends capital letter R, that means do the Print operation to scale.

Str-6 NC (Temporarily retain.)

Str-7 Fast stabilization to transmit the weighing data.

Str-8 Stable for 1s to transmit the weighing data.

Str-9 Stable for 2s to transmit the weighing data.

Str-10 Stable for 3s to transmit the weighing data.

2. CLA-X Communication data format.

CLA-1 Weighing data without +/-symbol, without units and with CR LF for example 0.00

CLA-2 Weighing data without +/-symbol, without units and without CR LF for example 0.00

CLA-3 Weighing data with +/-symbol, with units and with CR LF for example -0.03g

CLA-4 Weighing data without +/-symbol, with units and with CR LF for example 0.03g

CLA-5 Weighing data with +/- NT ST symbol, with units and with CR LF for example ST, NT, +0.000g (Default)

CLA-6 with extra big size display, only suitable Baud rate 1200 and Mode Str---1.

CLA-7 Weighing data with +/-symbol, without units and with ENTER for example -199.992 ENTER.

CLA-8 Weighing data with N.W, G.W, T.W.

for example NO.: 0001 N.W: 100.00g T.W: 200.00g G.W: 300.00g

CLA-9 Weighing data with wn, +/-symbol, with units and with CR LF for example wn -0.03g

3. Zer-X Weighing data zero or minus whether send it.

Zer-1 Weighing data zero or minus dont send it.(Default)

Zer-0 Weighing data zero or minus send it

4. bExxx Baud rate selection

Be1200 Be2400 Be4800 Be9600(Default) Be19200

5. PC---X select the print output equipment

PC-1 choose computer or the common serial port printer (Default)

PC-2 choose editable label printer

PC-3 choose GP3120 label printer

6. PL-X print line selection.

PL-1 Dont output CR LF, suitable for straight line.

PL-2 Out put CR LF, suitable for interface port (Default)

7. PN-X(1-15) Editable label printer output model selection.(Only for PC-2 mode)

Only for PC-2 mode editable label printer, output NO. 1 to 15, default is 1.

8. PT-X print NO. Selection. (NO apply to CLA-8)

PT-0 Sending weighing data without number.

PT-1 Sending weighing data with number.

9. PZ-X When stable transfer data, whether need to take down the items then to sending the data.(Only suitable for STR--2 mode and -HE5.2-)

PZ-0 means need to take down the items then to send the stable data.

PZ-1 means not need to take down the items,it will send the stable data.

10. PF-X the speed of continuously sending weighing data(Only suitable for STR--1 mode and -HE5.2-)

PF-0 means 5~6times/s

PF-1 means 10~12times/s

11. Ti-ON/OFF Date-time switch (Option: date-time IC)

Ti-ON turn on the date-time function, print out with date and time.

Ti-OFF close the date-time function, print our without data and time.

12. When ti-ON function open, setting the original time of date-time IC.

CAL key incremental value, press PRINT key enter into another setting, press MODE key to confirm it and then exit it.

0XX-XX first select the year, then the month.

XX-UUX first select the day, then the week.

HXX-XX first select the hour, then the minute.

The above parameters press CAL key to do it, press PRINT key to choose the items, then press MODE key to confirm it and exit it.

IV. The instruction of communication data format.

1. CLA-1 data format.

Weighing data without +/-symbol, without units and with CR LF for example:

Screen shows: -500.09g

Output data ASCII (hex):2D 20 20 35 30 30 2E 30 39 0D 0A

Instruction:

The first character 2D or 20 means “-” or shows space.

The 2~9 character show the number and decimal point.

The 10~11 character OD 0A, the CRLF and finished.

2. CLA-2 data format.

Weighing data without +/-symbol, without units and without CR LF
for example:

Screen shows: -500.09g

Output data ASCII (hex):2D 20 20 35 30 30 2E 30 39

Instruction:

The first character 2D or 20 means “-” or shows space.

The 2~9 character show the number and decimal point.

3. CLA-3 data format.

Weighing data with +/-symbol, with units and with CR LF
for example:

Screen shows: 500.10g

Output data ASCII (hex):2B 20 20 35 30 30 2E 31 30 67 20 20 0D 0A

Instruction:

The first character 2D or 2B means “-” or “+”

The 2~9 character show the number and decimal point.

The 10~12 character show unit

The 13~14 character OD 0A, the CR LF and finished.

4. CLA-4 data format.

Weighing data without +/-symbol, with units and with CR LF
for example:

Screen shows: -500.10g

Output data ASCII (hex): 20 20 35 30 30 2E 31 30 67 20 20 0D 0A

Instruction:

The 1~8 character show the number and decimal point.

The 9~11 character show unit

The 12~13 character OD 0A, the CR LF and finished.

5. CLA-5 data format.

Weighing data with +/-symbol, GS,NT,ST, with units and with CR LF
for example:

Screen shows: 218.23g

Output data ASCII (hex):

53 54 2C 47 53 2C 2B 20 20 32 31 38 2E 36 34 67 20 20 0D 0A

Instruction:

The 1~3 character show US or ST: US means not stable, ST means stable.

The 4~6 character show GS or NT, GS means gross weight, NT means net weight.

The 7 character show +/-2B/2D.

The 8~15 character show the number and decimal point.
OD 0A, the CR LF and finished.

The 16~18 character show unit

The 19~20 character OD 0A, the CR LF and finished.

6. CLA-8 data format.

Weighing data with N.W, T.W, G.W.

For example:

No.:0005

N.W: + 100.00g

T.W: + 200.00g

G.W: + 300.00g

Output data ASCII (hex):

4E 6F 2E 3A 30 30 30 35 0D 0A

4E 2E 57 2E 3A 2B 20 20 31 30 30 2E 30 30 67 20 20 0D 0A

54 2E 57 2E 3A 2B 20 20 32 30 30 2E 30 30 67 20 20 0D 0A

47 2E 57 2E 3A 2B 20 20 33 30 30 2E 30 30 67 20 20 0D 0A

The first line, 1~4 character NO.: 5~8 character: Serial no. 9~10: OD 0A the CRLF.

The second line, 1~5: N.W: 6: 2D/2B means - /+ 7~14: number and decimal point. 15~17: show unit. 18~19: OD 0A the CRLF.

The third line, 1~5: T.W: 6: 2D/2B means - /+ 7~14: number and decimal point. 15~17: show unit. 18~19: OD 0A the CRLF.

The forth line, 1~5: G.W: 6: 2D/2B means - /+ 7~14: number and decimal point. 15~17: show unit. 18~19: OD 0A the CRLF.

7. CLA-9 data format.

Weighing data with wn, +/-symbol, with units and with CR LF.

Screen shows: wn -500.00g

Output data ASCII (hex): 77 6E 2D 35 30 30 2E 30 30 67 20 20 0D 0A

The 1~2 character: wn

The 3 character: 2D means -/+

The 4~9 character: align left shows data and point, at less 1pcs, at most 8pcs.

The 10~12: show unit.

The 13~14: OD 0A, the CRLF finished.

V. Selection of internal parameters functions.

In Zero state, hold press O/T key until the screen shows "-22-1-" (HE-5.0 shows 202004) then release the key, then press MODE key showing "SET-UP",

then enter into the internal parameters setting. Press PRINT key to choose the parameter, press MODE to confirm it and exit it.

1. C-X zero tracing function selection.

C-0~7 C-0 without zero tracing, C1-C7 zero tracing point from 1d~7d.

2. A-X the capacity tracing function selection.

A-0~7 A-0 without capacity tracing, A1~A7 capacity tracing point from 0.5d~3.5d.

3. bl-X the backlight mode selection.

BL-1 the backlight always shining. BL-2 close the backlight.

BL-3 save battery backlight, when shining for 1 minute if without any operation of scale, the backlight will be off.

BL-X When LED display, the brightness adjustment.

BL-1 dark brightness, power saving;

BL-2 normal brightness;

BL-3 super brightness.

4. FA-X weighing speed selection.

FA-1 slow FA-2 fast

5. Z-X zero return range.

Z-0 without zero return, Z-1~4 the larger the value, the larger zero return range.

6. Beep-X switch of buzzer.

Beep-0 buzzer button off beep-1 buzzer button on.

7. PASS-X check weighing mode

PASS-0 when the objects is higher the low limit value and lower the high limit value, the buzzer will be sound.

PASS-1 when the objects is lower the low limit value and higher the high limit value, the buzzer will be sound.

8. ZERO-X Strengthen zero tracing

ZERO-0 zero tracing without strengthen, ZERO-1 zero tracing strengthen to 1d or 2d.

9. Zo-X shows the extra 0.

Zo-0 without the extra 0

Zo-1 shows the extra 0, for example 0.00g, selection 1 it will be shows 0.000g.

10. HOLD animal weighing mode.

HOLD-0 without animal weighing function.

HOLD-1 dynamic weighing a peak value retaining, take down the object scale will be back to zero after press O/T key.

HOLD-2 dynamic weighing a stable value retaining, take down the object scale will be back to zero after press O/T key.

HOLD-3 dynamic weighing a stable value retaining, take down the object scale back to zero.

11. PST0-X whether scale stable to checking the upper and lower limit alarm.

PST0-1 when stable to checking the upper and lower limit alarm

PST0-0 checking the upper and lower limit alarm, no matter it is stable or not stable.

12. Zt-X Open Power save function or not. (Only for LED display.)

Zt-1 with Power save function. When no weighing changes or no pressing about 30s, the screen will power off.

Zt-0 without power save function.

VI. Open/close the units operation.

Turn off the scale then hold press MODE key to turn on scale until it shows “-UNIT-”, scale will show units press CAL key to choose YES or NO, press PRINT to next unit, then press MODE to confirm it and exit it.

YES: means to open this unit.

NO: means to close this unit.

VII. Calibration.

1. Single point calibration, take 620g/0.01g for example, the calibration value is 500g.

When scale goes to zero, hold press CAL key until the screen shows CAL (press about 3 seconds), then shows “500.00g” flash, put on 500g weight on pan, showing “-----”, then stable it will show “500.00g”, then take down the weight, calibration finished.

PLS: if after calibration also have some point error, please do this calibration process one or two times.

2. Arbitrary calibration value setting.

Take 620g/0.01g for example, the calibration value is 500g, but without 500g weight only have 200g weight, we can modify the value.

But please note that in order to make sure the accuracy of scale, the calibration value must be higher one third of maximum capacity.

Operation	Screen shows content
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When scale goes to zero, hold press CAL key until screen show CAL, then screen shows CAL value.	"500.00g" all digit flash
Press "PRINT" key	0500.00g the first digit from the left flashes
Press "O/T" key to eliminate the original CAL value.	000000g the first digit from the left flashes
Press "PRINT" key for three times, the flash Icon will be move to the forth 0 from left to right.	000000gt the forth 0 flashes from the left.
Press "CAL" key two times, the number change to 2.	000200g the forth number flashes from the left.
Press "MODE" key to confirm it.	200g flash.
Put the 200g weight on the pan, when stable it will shows CAL value.	200.00g static.
Take down the weight, calibration finished.	0.00g

3. Linear calibration.

Take 620g/0.01g for example, the value is 500g and 200g, prepare the standard weight.

When scale goes to zero, hold press CAL key until screen shows CAL, then shows "500.00g" flash, then hold press MODE key until screen shows CAL again, now enter into linear calibration. Screen shows "500.00g", put the 500g weight on the pan, showing "-----", then stable it will show "500.00g", then take down the weight, screen will shows "200.00g" put the 200g weight on the pan, showing "-----", then stable it will show "200.00g" again, then take down the weight, scale goes to zero, the linear calibration finished.

4. Arbitrary linear calibration values setting.

When modify the capacity and accuracy, need to change the linear calibration value.

Take 820g/0.01g for example, the linear calibration value is 800g and 500g, now the capacity modify to 620g/0.01g, so the linear calibration value need to change to 500g and 200g.

The operation as bellow:

Process	Screen shows
Turn off scale then press CAL key to turn on the scale.	-LINE-
Shows inner value, the value will be some waving.	0
Press PRINT key, shows the	000500g

first value	
Press MENU key to eliminate it	000000g the first 0 flash from left.
Press CAL key four times.	000000g the forth 0 flash from left.
Press MODE key two times, then finished.	000200g the forth digit flash from left.
Then put 200g weight on the pan.	000200g the forth digit flash from left.
When stale, press PRINT key one time, the first calibration value finished.	Shows "--P2--"
Press PRINT key shows the second calibration value.	000800g
Press MENU key to eliminate it	000000g the first 0 flash from left.
Press CAL key four times.	000000g the forth 0 flash from left.
Press MODE key five times, then finished.	000500g the forth digit flash from left.
Then put 500g weight on the pan.	000500g the forth digit flash from left.
When stale, press PRINT key one time, the second calibration value finished.	Shows "—P3--"

VIII. LPLN Tracing setting.

Turn off the scale, press O/T key to turn on the scale, showing "SET-UP" then shows LP, press CAL key to incremental the parameter value, press PRINT turn to next parameter setting, press MODE key to confirm it and then exit it.

LP-X Beyond the standard value, tracing back.

LP-0 Without tracing. LP-1~7 Tracing 1d~14d

LN-X Less than the standard value, tracing back.

LN-0 Without tracing. LN-1~7 Tracing 1d~14d

LS-X Arbitrary tracing value selection

LS-0 Without tracing, LS-1 Arbitrary tracing value