

VS-2501 Veterinary Scale

Operations Manual



Safety Notice



Any changes to the menu settings can effect weighing. The VS-2501 has been set and calibrated at the factory for optima performance. It is recommend that changes only be made by qualified individuals. Do not allow untrained personnel to operate, clean, inspect, maintain or tamper with the scale.



The indicator is static and sensitive equipment, Remove power during electrical, servicing. Internal components touched by hand will void warranty

Handle the scale with care.

Do not put excessive loads on the scale.

When the platter is removed be careful of the cleaning procedures not to damaged internal components.

Avoid any un nessary roughness during operation

Unpacking

Thank-you for purchasing a WeighSouth Industrial product. Please inspect the package immediately upon receipt. If the box is damaged check for internal damage. Please keep the packing material and shipping insert in case you are directed to return the scale

Ensure that all parts are accounted for:

- WeighSouth WS10 Indicator
- Weighing Platform
- Wall Mount Bracket
- Required parts bag
- Operation manual

The VS-2501 has been factory checked and calibrated before shipment. The correct location is crucial to the accuracy of the weighing results. Select a stable, vibration-free and level location. The ground must be able to safely bear the weight of the fully loaded scale.

Assembling

1. With the box opened you will notice the large platform upside down. While in the box screw in the 4 adjustable feet into each corner of the base assembly. Make sure that each foot has in place the plastic spacer provided.
2. It is recommended that two person lift out the base assembled and place on a level location.
3. With the base firmly on the ground readjust each leveling foot to ensure that the base is firmly in place. All four leveling feet must be touching the ground surface
4. Remove the Scale Indicator and connect the cable from the base to the back of the Indicator by lining up the ports correctly and secure the screw connector.



Base
Connector

5. Attach Wall/Table mount bracket using the hexagon screws supplied.



Image 1

Switching on/off the VS-2501



Press and Hold for 2 seconds to power on or power off, after power on the indicator will show "000000-999999". After self inspection. It go to the weighing mode and 0.0 will be displayed on the unit.



Press and Hold for 2 seconds to power the unit off.

Battery Operation

Your VS-2501 is equipped with an internal rechargeable battery. The unit will automatically switch to battery mode when the power supply is disconnected from the Indicator

When you use the VS-2501 for the first time it is recommended to charge the battery for full eight hours

Battery Operation

Red Battery Light: Shows when battery is low

Green Battery light: Battery Charged

Basic Weighing Functions



Weight is Zero and Stable



The weighing data is stable

Gross

Gross Weight is shown

Tared

Indicates a Tare value is stored

Hold

Indicates "Hold" feature is active

lb

Weighing unit is pounds

kg

Weighing unit is kilograms

Battery

Battery Status

Hi/OK/Lo

Indicates check weighing function



Powers unit on/off



For Manual Hold when automatic hold not set in Menu Func-



For accumulation of multiple weights



Unit Switching



Shows Gross Weight



Stores Tared Weight Values



Allows unit to Manually reset Zero within specifications set in C Functions

Operating your VS-2501

For best results make sure your unit is on a level and stable surface

Zeroing.

Before weighing the Weight Display needs to be showing 0.0. If not a simple press of the



Key will reset the unit to zero.

Straight Weighing

Use care when placing the items to be weighed not drop heavy items on the unit. Once the subject is on the scale the weight will be displayed. Upon removal the weight display will return to 0.0

Weighing With Tare.

Tare weighing provides a weight by first subtracting the weight of the object not needed in the final result.

1. Place the object onto the platform

2. Press Tare

* Tare enunciator with display*

3. The Weight display will return to zero

4. Place the actual weight including the tared container onto the platform.

The Weight displayed is the actual weight of the object not including the container.

5. To remove Tare value press with no weight on Platform

Accumulation Operation

With the unit at 0.0 load the first weight and wait until stable. Press activates the accumulation mode. Total enunciator with illuminate, to show accumulation mode is active.

Display: n 001 First weight captured

Remove First weight and add second weight

Press

Display: n 002 Second Weight Captured (maximum 999 weights)

To show Total

Press and at the same time, Display show N xxx, where xxx is the number of weighing, and then shows total accumulated weight. To continue accumulation Press for 2 seconds and then Press

To Exit Accumulation Function

When viewing total accumulations Press  for 2 seconds, Press  , Press  The VS-2501 will return to weighing mode.

Check Weighing Function

The Check weighing function is used to show if a sample weighed is between an upper and lower limit set by the user. To set upper and lower limits see C 13 and C14 in the menu settings. Once the upper and lower limits are set the Annunciators Light will function.

Hold Function

The VS-2501 is equipped with two Hold Functions. The Hold function is enabled in the menu settings C 11. C11 3 is Auto hold and C 11 4 is Manual Hold using the key pad.

Auto Hold

When set to this function weigh the animal as normal by placing the animal on the platform. Once the animal becomes stable (within tolerances) the VS-2501 will calculate the average from various readings. Once the average is set the VS-2501 will lock in the weight and the Hold Light will illuminate. The weight will return to normal reading after the animal is removed from the unit.

Manual Hold.

When set to this function weigh the animal as normal by placing the animal on the platform. Once the animal becomes stable (within tolerances) press the hold key and the VS-2501 will calculate the average from various readings. Once the average is set the VS-2501 will lock in the weight and the Hold Light will illuminate. The weight will return to normal reading after the animal is removed from the unit.

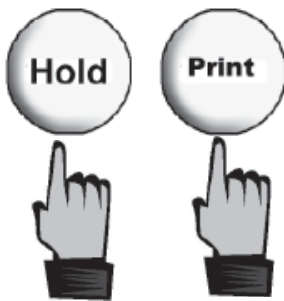
Set Up Menu

Most setup functions should only be changed by a qualified technician with the correct tools. making certain changes can affect the scales ability to preform well.

The Set Up Menu consist of “ C ” functions with each “ C ” Function having different settings.

Entering Set Up Menu

Press



“C” Function “C” Sub-Menu

Navigating Menu Structure



Enters “ C ” Function Exits “ C ” Sub-Menu



Exits and Saves “ C ” Functions. Only Excuated when “C” Sub-Menu is not showing



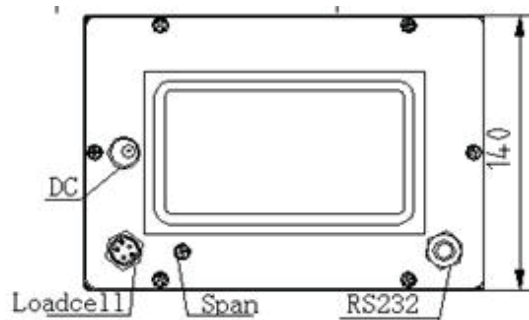
Moves Digit Up One



Moves Digit to Left



Moves Digit to Right



The key functions in setting:

← Enter

↑ Up

↓ Down

← Left

⏻ Power switch. exit setting

4.2. Step of calibration operation:

According to the second method which can enter setting menu,
C01-C39

step	Method of operation	display	Remark
1		[C01]	After you enter calibration mode, it display [C01]
2	press ←	[C01 1]	Weight unit option: 1=kg 2=lb
3	press ← press ← press ↑ or ↓	[C02] [C02 0] [C02 2]	Set decimal digits option: 0/1/2/3/4 Select decimal digit

			example: two decimal point: [C02 2]
4	press ← press ← press ↑ or ↓	[C03] [C03 1] [C03 5]	Set graduation option: 1/2/5/10/20/50 Select required graduation example: graduation 5: [C03 5]
5	press ← press ← press ↑ or ↓ / ←	[C04] [0100.00] [0100.00]	Max capacity example: max weighing 100kg: [0100.00]
6	press ← press ← press ↑ press ←	[C05] [C05 0] [C05 1] [CAL 9] [0000.00]	Zero calibration Option 0=no need zero calibration 1=need zero calibration calibration zero please choose 1 and ensure scale is empty and "stable" light is on Ensure zero calibration, countdown. Till show[0.00](example for two decimal point)。
7	press ← press ← press ↑ or ↓ press ← press ↑ or ↓ press ←	[C06] [C06 0] [C06 1] [SPAN] [0100.00] [0080.00] [CAL 9] [0080.00] [CAL End]	calibration option: 0=No need calibration 1= need calibration Load weights on scales according to max. capacity. Suggest close to the max capacity, at least 10% of max. capacity. For example: the weights is 80kg As bellows: Input the 0080.00, count down ,

			then indicator shows 0080.00 , calibration is over. If you want to set application function parameter. Press "PRINT" if you want to exit press "TOTAL"
8	press ← press ← press ↑ or ↓	[C07] [07 0] [07 1]	Default parameters setting option:0=non-restore default parameters 1=restore default parameters Note: after the above parameters setting finish, please do not set default parameters to avoid the original setting parameters is lost.

4.3 Application function parameters setting chart

Function	Setting Item	parameters setting and instruction
warning tone	C08 warning tone	Options: 0 = close warning tone 1 = open warning tone
Automatic power off	C09 Automatic power off	option: 0=close auto power off 10= power off automatically if no change within 10 minute. 30= power off automatically if no change within 30 minute. 60= power off automatically if no change within 60 minute.
Power saving setting	C10 Power saving setting	LED Version: option: 0= close power saving setting 3= close display if no change within 3min. 5= close display if no change within 5 min. LCD Version:

		0=Close he backlight 1= backlight when the weight change or press the keyboard 2=constant backlight
Hold function	C11 Hold mode	option: 0=close hold function 1=Peak hold /2=Data Hold Instruction: Peak-hold: it shows the max. data, mainly application for materials testing, such as tension and pulling force. Date-hold: it shows current weight value. Mainly application for animal weighing.
Kg/lb conversion	C12 Kg/lb conversion	C12=0 stop kg/lb conversion C12=1 kg/lb conversion is ok
Upper/lower limit alarm	C13 Upper limit alarm value	You can set it within the max. capacity limit
	C14 Lower limit alarm value	
Inner Code display	C15 Check inner code	enter C15 to check the inner code

Date and time	C16 Date	Enter C16, you can set the date, from left to right: year/month/day
	C17 Time	Enter C17, you can set the time from left to right: hour/min./sec.
Communication setting	C18 Serial interface	option: 0= Close serial interface data output 1=Continuous sending, connect big display

data output method

		<p>2=Print method, connect printer.</p> <p>3=Command request method , connect computer.</p> <p>4=PC continues sending format, connect computer.</p> <p>5=PC/ big display continuous sending format.</p>
	<p>C19 Baud rate</p>	<p>option: 0=1200/1=2400/2=4800/3=9600</p>
Zero range	<p>C20 Manually zero range</p>	<p>Option: 0= close manually zero setting 1=$\pm 1\%$ max capacity 2=$\pm 2\%$ max capacity 4=$\pm 4\%$ max capacity 10=$\pm 10\%$ max capacity 20=$\pm 20\%$ max capacity 100=$\pm 100\%$ max capacity</p>
	<p>C21 Initial zero range</p>	<p>option: 0= no initial zero setting 1=$\pm 1\%$ max capacity 2=$\pm 1\%$ max capacity 5=$\pm 1\%$ max capacity 10=$\pm 1\%$ max capacity 20=$\pm 1\%$ max capacity</p>
Zero tracking	<p>C22 Automatically zero tracking range</p>	<p>Options: 0= close zero tracking 0.5=$\pm 0.5d$ 1.0=$\pm 1.0d$ 2.0=$\pm 2.0d$ 3.0=$\pm 3.0d$ 4.0=$\pm 4.0d$ 5.0=$\pm 5.0d$</p> <p>Note: 1. d = division 2. the zero tracking range can</p>

		not bigger than manual zero range.
	C23 Automatically zero tracking time	Options: 0= close zero tracking time 1= 1 second 2= 2 seconds 3= 3 seconds
Overload range	C24 Overload range	option: 00= close overload range 01d~99d remark: d =division
Negative display	C25 Negative display range	Option: 0=-9d 10=10% max. capacity 20=20% max. capacity 50=50% max. capacity 100=100% max. capacity
Standstill time	C26 Standstill time	Option: 0= quick 1= medium 2= slow
	C27 Standstill range	Option: 1= 1d 2=2d 5=5d 10=10d D= division

Digital filter	C28 Dynamic filter Instruction : Dynamic filter is collecting the data filter before loaded weight stable. When loaded weight easily shaking (for example animal) , you can set this filter to make weight display more stable	option: 0= close dynamic filter 1=1 digital filter strength 2=2 digital filter strength 3=3 digital filter strength 4=4 digital filter strength 5=5 digital filter strength 6=6 digital filter strength Note : Pls setting dynamic filter strength carefully, the No. is bigger, more stable. if the loaded weight shake not too much. The setting is less than 3
	C29 Noise filter	option: 0=close noise filter 1=1 digital filter strength 2=2 digital filter strength 3=3 digital filter strength
	C30 Print time and date	C30=0 yy.mm.dd C30=1 mm.dd.yy C30=2 dd.mm.yy C30=3 yy.mm.dd
Analog output setting	C31 output type	C31=0 0~5Voutput C31=1 4~20mA output
4~20mA current calibrate	C32 calibrate current	Refer to 2.5
Relay output setting	C33 Relay output	C33=0 close relay output C33=1 Open relay output function 1 C3=2 Open relay output function2 C33=3 Preserved menu

Muti communication add.	C34 Communication add.	C34= 0~99 Add. Code
Wireless communication	C35	C35=0~99 signal
Gravity of calibration location	C36	C36=9.7000~9.9999
Gravity of destination Version No.	C37 C38	C37=9.7000~9.9999
Preserved menu	C39	

**** Changes in the “ C ” functions C01-C07 can dramatically affect the performance of the scale and may void warranty if not done correctly****

Description	“C” Function	Default	“ C “ Sub Menu
Calibration Unit	C01	C01 1	1=Kilograms 2= Pounds
Decimal Readings	C02	C01 1	0=0 1=0.0 (One Decimal Point) 2=0.00 (Two Decimal Point)
Scale Graduation	C03	C03 1	0=0 1=0.1 2=0.2 5=0.5
Scale Maximum Capacity		C04	0
Scale Zero Calibration	C05	C05 0	0= No Zero Calibration 1= Zero Calibrate Scale
Scale Calibration	C06	C06 0	0= No scale calibration 1= Calibrate Scale
Reset Default	C07	C07 0	0= Do not restore Defaults 1= Restore Defaults

Error Codes

UUUUUU	1. Overload	1. Reduce Weight
	2. Wrong connection with Load Cell	2. Confirm that the Base is Connected to the Indicator. Check for any cuts in the cable
	3. Load cell has quality issue.	Replace Load Cell
nnnnnnn	1. Calibration is off	1. Check scale feet to see if they are level and Base is setting firm on surface.
	2. Wrong connection	2. Check load cell connection.
	3. Load cell has quality issue	3. Checking load cell check input and output resistance
ERR1	During calibration, not input the weights or the weight is overload	1. Input the correct weights
ERR2	During calibration, the input signal is negative	The calibration weights Minimum is 10% of Max. cap. Recommend 60%-80% of Max. Cap.
ERR3	During calibration, the input signal is negative	1. Check the connection of the Base.
		2. Confirm that the correct calibration data was inputted into the Indicator.
ERR4	During calibration, the signal is unstable	After the platform is stable, start calibration

The Manufacturer warrants each product to be free from defects in materials and workmanship, and to conform to its published product specifications under normal use and service for the period of one year commencing from the date of purchase.

The foregoing warranty is extended only to the first purchaser and applies only to product failures due to defective materials and/or workmanship. Without limiting the generality of the foregoing, the foregoing warranty will not apply if, upon inspection, it is found that the product was: misused or abused; used for a purpose for which it was not designed; mishandled; placed in an improper environment; repaired by unauthorized personnel; or improperly installed or adjusted.

The sole and exclusive remedy in the event of any breach of the foregoing warranty shall be for the original purchaser to return the product to The Manufacturer, freight and insurance prepaid, for repair, replacement or credit, at The Manufacturer option. Any product repaired or replaced under the foregoing warranty shall be shipped back to customer freight and insurance prepaid.

Except as provided above, The Manufacturer makes no warranty concerning the products, expressed or implied, including but not limited to the implied warranties or merchantability and fitness for a particular purpose. All such warranties are expressly disclaimed. In no event will The Manufacturer liability under the foregoing warranty exceed the purchase price paid for the product giving rise to the liability.

IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING WITHOUT LIMITATION DIRECT, OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM OR RELATED TO THE USE OR INABILITY TO USE A PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY, EVEN IF THE MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH INCONVENIENCE, DAMAGE OR LOSS.