VHS-311 / VHS-311-T
Crane Scale
Operation Manual
The VHS-311 crane scale is a high-precision scale suspended on a hoisting equipment to hoist, weigh and gather weighing data all at once. The easy-to-use, space-saving and economical scale has found wide applications in industries such as metallurgy, construction as well as in the warehouses and piers.

**Function Features**

- LED display;
- Dynamic weighing (the weighing result will not be influenced even when the scale is in motion);
- 1,000,000 internal resolution with high precision and high stability;
- Automatic “shut-off” function to save energy;
- Automatic recording of the latest 13 weighing data and data retained at power off;
- Displayed battery voltage

**Major Technical Indexes**

- 60 hours of continuous working time per recharge
- Safe overload of 120% F.S
- Rated temp : -10~40°C
- Operating temp: -10~70°C (accuracy will be affected if the temperature is over the rated temperature)
- Ambient humidity: ≤90%R.H.
- Dimension of display: 5 digits 30mm (1.2") LED indicator

**Specifications and Fundamental Parameters**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Division</th>
<th>Ship Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHS-311-1000</td>
<td>1000kg (2200lb)</td>
<td>0.5kg (1lb)</td>
<td>23kg (51lb)</td>
</tr>
<tr>
<td>VHS-311-3000</td>
<td>3000kg (6600lb)</td>
<td>1kg (2lb)</td>
<td>24kg (53lb)</td>
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<tr>
<td>VHS-311-5000</td>
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<tr>
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</table>
Optional Remote Controller

| A : ZERO                |
| B : ON / OFF           |
| C : BACKLIGHT          |
| D : RECALL             |

Operational Instructions

1) Self-check after power-on
Before using the scale, make sure that the scale hook is free of any load before pressing the ON/OFF button to switch on the scale. The indicator will display the software edition no., weight capacity and the voltage of the battery. Two seconds later, the screen will display the count-down with a series of digits from “00000” to “99999” in the reversed order. The scale can be used when the display reads “0”.

2) ZERO button
Press “ZERO” to zero the scale. If the hung weight is in steady state, it will be registered as tare and “0” will be displayed.

3) RECALL button
Press “RECALL” for the scale to display the last weighing result. The second push will show the result of the last second weighing. The scale can recall up to 13 records of the latest weighing results.
Press “ZERO” to end recalling. The data recorded will be retained even at power off.

4) Time-lapse zero (For scale without remote)
The scale (without remote) is difficult to set to zero when the goods is hung very high. User can lift the goods before the self-check finished or press “ZERO” until a “beep” is heard.
The display will then show “A”. Lift the goods and after 30 seconds the scale will set to zero automatically.

5) Power Off
Press “ON/OFF” to switch off the power of the scale. When the scale remains steady for over 50 minutes, the power will be automatically shut down. Transient flickering is normal indicating that the system security monitoring circuit is working.

Charging

The battery can be charged up either when the scale is on or off. When the voltage is less than 5.8V, the batteries should be recharged. Over discharging the battery will shorten its life. When “low battery” indicator lights up, the battery should be charged immediately.
Plug the socket of the charger at the back of the scale in a power supply of either 110V or 220V for about 8 hours. Keep pushing “ZERO” at power on, and the status of charging is under control according to the display of voltage of the battery being charged.

**Maintenance**

The crane scale is a high-accuracy instrument that needs special care in the following area:

- Although our crane scale is strongly resistant to vibration and water, it should be protected from violent vibration and rain. Special attention should be paid so that the weight does not fall from the hook.
- If the scale is to work in high-temperature environment, it is advisable that a request to be made for high-temperature crane scales. Do not operate the scale at high temperature areas for long hours as the scale may not perform normally if the temperature of the outer case is above 70°C.
- Over loading will damage the load cell.
- The rechargeable battery will discharge automatically and over discharging will damage the battery. Therefore, it should be recharged regularly, once every three months, even if the scale has not been used for some time.

**Calibration Features**

The crane scale has been pre-calibrated and is ready to use. If the scale needs to be re-calibrated, please contact the manufacturer or authorized dealer. Please do not calibrate the scale on your own.

**Warranty Statement**

*Virtual Measurements & Control* warrants your VHS-310 instrumentation, under normal use and service to be free from defects in material and workmanship for a period of twelve (12) months from the date of purchase.

If your VHS-310 instrumentation fails to work properly during the warranty period due to a defect in materials or workmanship VMC will either repair or replace it at no charge for labor or materials. Replacement units are provided on an exchange basis and will be either new or reconditioned at VMC’s discretion.

Warranty service may be obtained by returning or shipping your faulty unit prepaid and insured to our nearest repair or manufacturing facility.

Failure to exercise caution to protect the equipment from electrostatic discharge damage, adverse temperature and humidity conditions or physical abuse may void the warranty.

Under no circumstances will the supplier of the equipment be liable for any incidental, consequential or special damages of any kind whatsoever, including but not limited to lost profits arising from or in any way associated with the use of the equipment.