Larson Davis Model HVM100
Human Vibration Meter
Quick-Start Guide

- Simultaneous tri-axial measurement reducing measurement time
- Easy storage of files for later interrogation
- Simple to operate
- Lightweight & robust
- 100 file memory capacity
- Implementation of hand arm and whole-body weighting curves

The HVM100 is shipped with an internal set-up for Hand Arm Vibration measurement which implements the relevant weighting curves. Subject to customer requirements, an internal setup for whole-body vibration may also be included.

MAKING A MEASUREMENT (Hand-Arm)

Simplified Instructions:

1. Fit accelerometer and fixture to tool, with connector facing outwards.
2. Fit cable to accelerometer (slot upwards).
3. Connect cable to HVM100 (red dot on Lemo plug at top) .
4. Switch HVM100 on (the meter should now click twice, this indicates the meter is active and ready).
5. The meter displays "**HAV 20_Gain**" this indicates the standard S0 setting as mentioned below. Gain settings can be changed to the other pre-programmed setups for high and low vibration tools by pressing **'SETUP'** followed by **'Recall'**. You will now have a screen with S0 flashing. The pre-programmed gain settings for the HVM100 are as follows:

S0	20_Gain - Normal vibration e.g. Breakers/Impact Wrench, etc
S1	00_Gain - High vibration e.g. Old Breakers/Rivet Hammer
S2	40_Gain - Low vibration e.g Rotary Tools

6. Press ▲ ***(up arrow)*** and repeat until the desired Gain Setting (i.e. Setup) is flashing.
7. Press ✔ ***(tick)*** to change to the selected Gain setting (i.e. Setup).
8. Start the tool and operate normally.
9. Press **Run** to start measurement.
10. Monitor the **Arms** slow reading for each axis - X, Y and Z – to ensure the **? (**under-range) symbol <u>is not displayed</u> for prolonged periods during the measurement.

<u>Important Note:</u> *False readings can occur when low gain is selected and the* ***?*** *under range symbol occurs.*

- *Press **Run** to pause or stop the measurement.*
- *Change to a higher gain setting (Step 5-7).*
- *Press **Reset** to clear the current reading and repeat the measurement (Step 9).*

11. After 20 to 30 seconds, press **Run** again to pause or stop the measurement.
12. Either press **Store** to save the measurement for further analysis with proprietary software (or download with Windows Hyper-Terminal) or press ▼ ***(down arrow)*** three times to display **Aeq** and note readings of **X**, **Y**, **Z** (if you wanted to) and ∑ and **duration**.
13. Obtain a <u>further two</u> results for each tool by repeating steps 8 to 13. Note that data will be written to memory location 1 and then serially (2,3,4 etc) up to location 99.

Whole-Body Vibration:

- Attach the seatpad accelerometer to the operator or machine which is under test.
- Press **Setup** then **Recall** then ▲ ***(up arrow)*** until "**WBV 00_Gain S3**" is found.
- Press the **Run** key and allow the instrument to:
  - run for <u>one</u> minute and then auto stop.
  - store the measurement to a location in the internal memory.

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