

RASOR/HAVwear Training Aid Guide

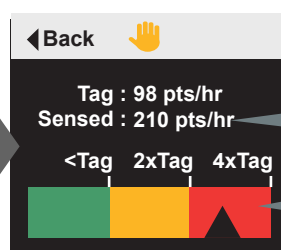
The training aid application available within RASOR has been developed to allow supervisors to proactively guide their operators in best use of a tool and to allow the best tool to be selected for the job.



01 Introduction

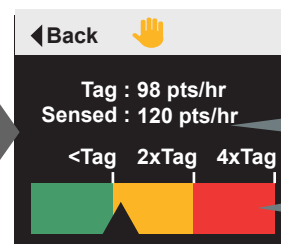
While standing alongside a tool operator who is wearing a HAVwear watch, the RASOR user can view the rate at which the tool operator's exposure will be accumulated based on the real time vibration sensed by the HAVwear. Different tool operators will invariably have a range of technique affecting the tool behaviour. For example, grip force, push force and posture. RASOR users now have the capability to coach their colleagues to obtain the optimum combination of productivity with minimum risk.

Example of variation in exposure from tool use as shown using the training aid



Poor tool use
Caused through unnecessary pressure on the tool handles

Estimate of points per hour is higher and sensed level from the HAVwear is materially different to the tool tag value.



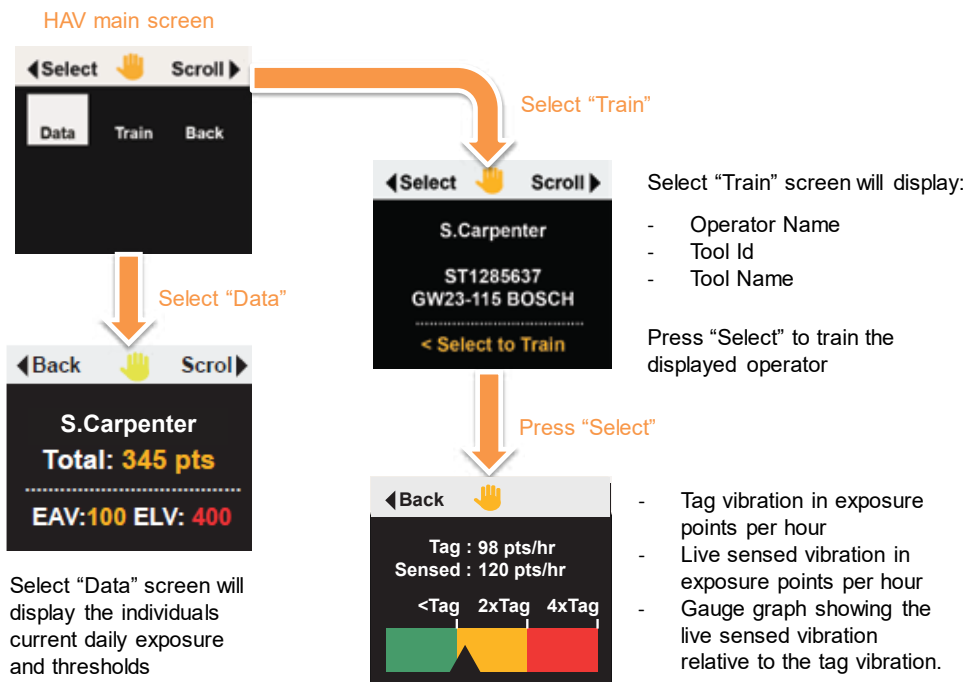
Good tool use
Correct pressure applied on the tool handles to operate the tool

Estimate of points per hour are similar and so is the sensed level from the HAVwear in comparison to the tool tag value.



*Note the reading is updated approximately once a second and is not a rolling average over the time since activation. This contrasts with instruments designed to measure vibration dose which average the dose from the start of the test and do not allow for real time analysis of technique.

02 Operation Steps



If the tool under test has a tool tag attached the RASOR display shows the relative exposure rate of the real time use versus what is expected of the tool as determined by the tool tag vibration magnitude.

The exposure risk from tool use varies widely depending on the tool type, its condition and that of its accessories. Also tool technique and if it's the right tool for the job.

Select "Data" screen will display the individuals current daily exposure and thresholds

03 Suggested Methods Of Use

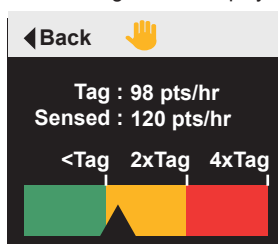
It should be recognised that the HAVwear real use data supplied to the RASOR is based on the HAVwear's sensed vibration reading. HAVwear's sensed vibration uses detected signals from a triaxial accelerometer in the device which are adjusted for transmissibility through the hand to give an approximation of the vibration magnitude incident at the hand. The reading as such does not meet the measurement requirements of ISO8041. However, the methodology is extremely consistent and will readily be able to determine relative risk levels for different uses of a tool or differences between tool types.

! The tricolour gauge graph on the RASOR display is intended to provide a straight-forward visual indicator of relative risk during operation. To get the best out of this function it is always desirable for the tool tag vibration to be representative of that tool in typical use.

Best use of tool tagging

Use of a tool tag brings into play the traffic light visual aid. The visual aid will identify when the sensed level from the HAVwear is materially different to the tag value.

The traffic light of the display indicates:



- Green:** Sensed vibration < tag exposure rate.
- Amber:** Sensed vibration is > tag vibration but < 2 times tag exposure rate.
- Red:** Sensed vibration is > 2 times tag exposure rate.

How to understand exposure rate

Exposure points accumulate based on the vibration magnitude in m/s² of the tool. See the table below for reference.

Vibration Magnitude m/s ²	Exposure points per hour
2	8
5	50
10	200
20	800