

[COMPANY NAME] – EQUIPMENT GUIDE

HOW TO COMPLETE THE REGISTER OF EQUIPMENT

A step-by-step guide to filling in the Register of Equipment (ARB-EQ-012), finding noise and vibration figures, and understanding the calculations.

Reference	Version	Date issued	Review date
ARB-EQ-012A	1.0	[DD/MM/YYYY]	[DD/MM/YYYY]

At a glance	
What it is for	Helping you fill in the spreadsheet correctly first time, and explain the numbers to an auditor or your team.
Who uses it	Whoever keeps the equipment register – usually the owner, office manager or workshop lead.
When	When you set the register up, when new kit arrives, and at your yearly review.
Time needed	About 15 minutes to read. About 5 minutes per item to add kit.
You will need	The register spreadsheet (ARB-EQ-012), and the manufacturer's handbook or website for each item.
Where it goes	Keep with the register on your shared drive or in the H&S folder.

The whole process in 7 steps

1	Set up the Settings tab (2 minutes, once).
2	Give each item an asset ID and fill in the "About the item" columns.
3	Pick your model from the reference list – or find the vibration figure in the handbook and type it in.
4	Find the noise figure in the handbook and type it in.
5	Check what the register has calculated – trigger times and hearing protection.
6	Use the Daily Exposure tab for anyone using more than one tool in a day.

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Put the results to work: brief the team, update the HAVS and noise risk assessments, and keep the register up to date.

1

Set up the Settings tab

Section 1 of 7 · About 2 minutes · once

Setting	What to do
Company name	Type your company name. It appears on the Register heading.
Uplift (default 10%)	A safety margin added to every vibration figure, because tools in real use (worn, blunt, hard timber, cold hands) often vibrate more than in the maker's test. 10% is a sensible starting point. It is your company choice, not a legal figure . Your competent person may advise more for some tools.
Add uncertainty K?	Leave as "No" to start. Choose "Yes" for a more cautious estimate that adds the maker's uncertainty value (see Step 3).
Legal values	The action and limit values are set by law. Do not change them.
Due soon warning	How many days before a due date the cell turns amber. Default 30 days.

2

Fill in the "About the item" columns

Section 2 of 7 · About 2 minutes per item

Column	What to put	Example
Asset ID	Your own short ID. Mark it on the kit (engraving, tag or label) so it matches.	CS-04
Category	Pick from the drop-down list.	Hand-held power tools
Description	What it is, in plain words.	Chainsaw – top-handled
Make and model	Exactly as on the maker's plate or handbook.	[Make] [Model]
Serial no. / registration	The serial number, or the registration for vehicles and trailers.	[Serial]
Owned / HP / hired	Pick from the list.	Hire purchase

Column	What to put	Example
Value and date purchased	For insurance and your asset records.	£650 · 14/03/2026
Issued to	The person or crew who has it.	Crew 2 – J. Smith
Inspection form	The inspection form used for its weekly or daily checks.	ARB-EQ-001 Chainsaw
Next service / MOT / LOLER due	The next date something formal is due. Climbing and rigging kit: the next 6-monthly LOLER examination.	30/11/2026
Status	In use, spare, quarantined, awaiting repair or retired. Quarantined items turn the row red.	In use

The easy option: pick your model from the list

The register has a **Reference Data** tab with the manufacturer-declared noise and vibration figures for common UK chainsaws (STIHL, Husqvarna, Echo), woodchippers (Timberwolf, Forst, GreenMech) and stump grinders (Predator, Vermeer, Rayco, Camon).

- In column M (the yellow column) pick your make and model from the drop-down list.
- The vibration value, noise level, trigger times and hearing protection fill in by themselves.
- Check the figures against your own handbook once, then tick the "Checked" column on the Reference Data tab.
- Not on the list, or a different version? Type your handbook figures in columns N and U instead – anything you type always wins.

Rows marked **Check needed** had conflicting or unclear published data. Rows marked **Not published** have no official figures – ask your dealer for the declaration of conformity, and treat the machine as over 85 dB(A) until you know.

3

Find the vibration figure

Section 3 of 7 · About 2 minutes per tool

If your model is not on the list, find the figure yourself:

Where to look

- Open the **operator's manual or handbook**. Go to the **"Technical data"** or **"Specifications"** page, usually near the back.
- Look for the words **"vibration value"**, **"vibration total value"** or the symbol **ahv** (sometimes written ahv,eq or ahv,Ceq). The unit is **m/s²**.

- Many tools give **two values: front handle and rear handle. Always use the higher one.**
- Next to it you will often see **K** (for example "K = 2.0 m/s²"). This is the uncertainty. Put it in the K column.
- No handbook? Try the manufacturer's website (search "[model] technical data" or "[model] vibration"), your dealer, or the supplier's product sheet. Record where the figure came from in the "Vibration data source" column.

What you might see in the handbook	What to type
Vibration value ahv,eq front handle 3.2 m/s ² rear handle 3.8 m/s ² K = 2.0 m/s ²	Declared vibration: 3.8 K: 2.0
Vibration total value ahv = 2.9 m/s ² (K = 1.5 m/s ²)	Declared vibration: 2.9 K: 1.5
Vibration < 2.5 m/s ²	Type 2.5 and note "declared as less than 2.5" in Notes.
No vibration figure (for example a chipper or loader you do not hold)	Leave blank. Only hand-held or hand-guided kit needs a HAV figure. Whole-body vibration from ride-on plant is assessed separately.

Use more than one source where you can

HSE's guidance (L140, 2019) says manufacturer figures should not be used on their own for an exposure assessment. Where you can, compare them with a second source – for example your dealer, a published database or on-site measurement – and note it in the Notes column. If sources disagree, use the higher figure.

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Find the noise figure

Section 4 of 7 · About 2 minutes per tool

Handbooks usually give **two** noise figures. They are not the same thing:

Figure in the handbook	What it means	Where it goes
Sound pressure level LpA (sometimes L _{peq} , or "at the operator's ear")	How loud it is for the person using it . This is the figure that matters for hearing damage.	Noise – sound pressure LpA column. Used for all calculations.
Sound power level LwA (sometimes "guaranteed sound power level" or L _w eq)	How much noise the machine gives off in total. Always the bigger number – often 10 dB or more higher.	Noise – sound power LwA column. For information only. Not used in calculations.

Figure in the handbook	What it means	Where it goes
K (for example K = 2.5 dB(A))	The uncertainty in the figure.	Noise uncertainty K column.

What this means for you

For example, if a chipper handbook says "LwA 120 dB(A)" and "LpA 99 dB(A)", type 99 as the sound pressure and 120 as the sound power. Using 120 would wildly overstate the risk to the operator – but it is still a very noisy machine for anyone nearby.

Tip

Cannot find a noise figure? Assume the tool is **over 85 dB(A)** and treat hearing protection as mandatory until you know otherwise. Nearly all petrol arb and landscaping tools are. Write "not found – assumed" in the Notes column.

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Understand what the register calculates

Section 5 of 7 · About 5 minutes to read

The purple columns calculate by themselves. This is what they do, using a chainsaw with a declared vibration of **4.2 m/s²** and a sound pressure of **101 dB(A)** as the worked example.

A. Vibration value used

Declared value + uplift. $4.2 \times 1.10 = 4.62 \text{ m/s}^2$. (If you switched on "Add K", it would be $(4.2 + 2.0) \times 1.10 = 6.82 \text{ m/s}^2$.)

B. Exposure points per hour

HSE uses a simple **points system**: $\text{points} = 2 \times (\text{vibration})^2 \times \text{hours}$. $2 \times 4.62 \times 4.62 = 42.7 \text{ points per hour}$. **100 points** in a day = the exposure action value (EAV). **400 points** = the exposure limit value (ELV).

C. Trigger time to reach the EAV and ELV

Trigger time is the time the tool is actually running with hands on it – not the whole shift. Time to reach the EAV = $8 \times (2.5 \div \text{vibration})^2 \text{ hours}$. $8 \times (2.5 \div 4.62)^2 = 2.34 \text{ hours} = 2 \text{ h } 20 \text{ m}$. Time to reach the ELV = $8 \times (5 \div \text{vibration})^2$. $8 \times (5 \div 4.62)^2 = 9.37 \text{ hours} = 9 \text{ h } 22 \text{ m}$.

D. Noise – time to reach 80 and 85 dB(A)

Every 3 dB increase doubles the noise energy, so the safe time halves. Time to reach 85 dB(A) = $8 \times 10^{((85 - \text{noise}) \div 10)} \text{ hours}$. $8 \times 10^{((85 - 101) \div 10)} = 0.2 \text{ hours} = 12 \text{ minutes}$. Time to reach 80 dB(A)

$= 8 \times 10^{((80 - 101) \div 10)} = \text{about 4 minutes}$. In practice this means **hearing protection all the time** the saw is running.

E. Hearing protection

Noise at the operator (LpA)	Register shows	What the law requires
85 dB(A) or more	YES – must be worn	Hearing protection must be worn, hearing protection zones marked, and health surveillance (hearing checks) for people regularly exposed.
80 to 84 dB(A)	Provide – advised	Provide hearing protection to anyone who asks, and give information and training. Assess the risk.
Under 80 dB(A)	Not normally needed	Keep noise low. Check the whole day's exposure on the Daily Exposure tab.

Source: Control of Noise at Work Regulations 2005 and Control of Vibration at Work Regulations 2005; HSE hand-arm vibration ready-reckoner (checked 23/09/2026).

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Use the Daily Exposure tab

Section 6 of 7 · About 3 minutes per person

Most arb and landscaping workers use several tools in one day. The Daily Exposure tab adds them together.

1	Choose the person's Asset IDs from the drop-down list, one per row.
2	Type the expected trigger time in hours for each tool, for example 1.5 for 1 h 30 m. Be honest: trigger time is usually much less than the time on site.
3	If someone is exposed to noise for longer than they are holding the tool (for example standing next to a running chipper), type that in the noise time column.
4	Read the result boxes at the bottom.

Worked example	Vibration	Noise
Chainsaw, 1.5 hours trigger time	$4.62 \text{ m/s}^2 \rightarrow 2 \times 4.62^2 \times 1.5 = \text{64 points}$	101 dB(A) for 1.5 hours
Long-reach hedge trimmer, 1 hour	$4.95 \text{ m/s}^2 \rightarrow 2 \times 4.95^2 \times 1 = \text{49 points}$	94 dB(A) for 1 hour

Worked example	Vibration	Noise
Day total	113 points = over the EAV (100), under the ELV (400). $A(8) = 2.66 \text{ m/s}^2$	LEP,d $\approx 94 \text{ dB(A)}$ – hearing protection must be worn and must bring exposure at the ear well below 87 dB(A)

If the day is over the EAV or ELV

- **Over the EAV (100 points):** you must reduce exposure as far as reasonably practicable – rotate tasks, use lower-vibration tools, keep chains sharp – and the person must be under health surveillance (ARB-HR-011).
- **Over the ELV (400 points):** this must not happen. Change the plan before work starts.
- **Noise over 85 dB(A) :** hearing protection must be worn and the person should be under health surveillance (ARB-HR-012).

7

Keep it working

Section 7 of 7 · Ongoing

- **New kit:** add it to the register **before** it goes out on a job.
- **Brief the team:** share trigger times at toolbox talks, and stick a label with the trigger time on each tool if that helps.
- **Risk assessments:** use the register figures in your HAVS and noise risk assessments and GRAs.
- **Defects:** record faults on the Equipment Defect Report (ARB-EQ-000) and tag kit out with a Do Not Use tag (ARB-EQ-013). Change the register status to "Quarantined".
- **Review:** check the register at least monthly for due dates, and fully every year.

Guidance for the business owner – remove before issue

The law. The Control of Vibration at Work Regulations 2005 set a daily exposure action value of $2.5 \text{ m/s}^2 \text{ A(8)}$ and a limit value of $5 \text{ m/s}^2 \text{ A(8)}$. The Control of Noise at Work Regulations 2005 set lower and upper exposure action values of 80 and 85 dB(A) and a limit value of 87 dB(A) (the limit takes account of hearing protection). Employers must assess the risk, reduce exposure, and provide health surveillance where there is a risk. HSE's HAV ready-reckoner uses 100 points (EAV) and 400 points (ELV). (Checked 23/09/2026 – HSE.)

Figures are estimates. Manufacturer data comes from standard tests. HSE L140 (2019) advises using at least two data sources where possible. For higher-risk tools or disputed figures, consider site measurement by a competent person.

Uplift. The 10% uplift is a company safety margin, not an HSE figure. Record your reason for the value you choose.

Peak noise. The register does not calculate peak noise (135/137/140 dB(C) peak). Very sudden loud noises, for example from some impact tools, need a separate assessment.

Arborella provides this guide and template as documentation support. It does not replace a competent person's noise or vibration risk assessment.

Related documents

Reference	Document
ARB-EQ-012	Register of Equipment (spreadsheet)
ARB-EQ-000	Equipment Defect Report and Log
ARB-EQ-013	Do Not Use Tags
ARB-HR-011	HAWS Health Surveillance Questionnaire
ARB-HR-012	Hearing (Noise) Health Surveillance Questionnaire
[ref]	Noise and HAV risk assessments

Document control

Document	Guide to the Register of Equipment (ARB-EQ-012A)
Owner	Company Director
Approved by	[Name, role]
Status	Controlled template – Live once approved
Review	At least every 12 months, and sooner if the law, guidance or the way you work changes

Ver.	Date	Author	Summary of changes
1.0	[Date]	[Initials]	First edition created