



**The Protection of the  
Environment Operations  
(Noise Control) Regulation 2017  
Draft Approved Methods for  
Testing Noise Emissions**



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# 1 Introduction

The Protection of the Environment (Noise Control) Regulation 2017 (the Regulation) includes labelling and noise limit requirements for various articles.

*Approved Methods for Testing Noise Emissions* (Approved Methods) specifies the test procedures to establish maximum noise levels for labelling requirements, and where appropriate, determine compliance with the prescribed noise limits for the articles defined in the Regulation.

# 2 Objectives

The Regulation requires specified articles to be labelled with their noise level as specified in the Regulation. Requirements for the testing of noise levels for the label vary depending on the article.

Manufacturers, suppliers and importers of certain specified articles can comply with the noise labelling requirements in the Regulation by following the relevant European Union (EU) noise labelling requirements<sup>1</sup> or the requirements in this document.

Where specified, noise labels must display noise levels in terms of the sound power level (L<sub>w</sub>). Approved Methods provides a correction factor to convert a sound pressure level (L<sub>p</sub>) to a sound power level.

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<sup>1</sup> Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors.

## 3 Inspection and testing of certain articles

### 3.1 Measuring instruments

1. This section applies to a sound level meter that is being used to measure and determine the noise level of the articles defined in the Regulation. It does not apply to determining noise levels from shooting ranges described in Schedule 1 of the Regulation.
2. Measurements must be undertaken in accordance with the best practice in AS 1055.1 (see 10a below) as appropriate.
3. A class 1 or 2 sound level meter complying with IEC 61672 (see 10b below) and associated equipment, including a microphone windshield must be used.
4. The sound level meter must be set to measure A-weighted noise levels and set with the following time weighting:
  - a. set to 'fast', when measuring the noise level of a motor vehicle horn or intruder alarm, or a chainsaw, or
  - b. set to 'slow', when measuring the noise level of a grass-cutting machine or mobile garbage compactor.
5. Noise levels must be measured in terms of the equivalent continuous sound level (Leq) metric, and the duration of the measurement should be representative of the duration of typical operation of the article being tested.
6. The calibration of a sound level meter must be checked, and any necessary adjustments made, immediately before the sound level meter is used to make the noise level measurements required by this Approved Method (the pre-test check) and must be checked again immediately after making those measurements (the post-test check).
7. The calibration is to be checked by performing a field calibration, using a reference sound source. If the noise level recorded during the post-test check (after any necessary adjustments have been made) differs by more than 1 A-weighted decibel [dB(A)] from the noise level recorded during the pre-test check, then all measurements made in the intervening period must be disregarded.
8. The person making the noise level measurements is to take all reasonable precautions to ensure that extraneous noise does not interfere with the making of measurements required by this Section.
9. If the noise levels recorded during the pre-test and post-test checks (when the article whose noise level is being measured is not operating) are not each 10 dB(A) or more below the lowest maximum noise level reading observed when making those noise level measurements, then all measurements made in the intervening period may be disregarded.
10. In this Section:
  - a. AS 1055.1 means: Australian Standard 1055.1 – 1997 *Acoustics – Description and measurement of environmental noise – General procedures* as amended or replaced from time to time.
  - b. IEC 61672 means: International Electrotechnical Committee IEC 61672 – 2004 *Electroacoustics – Sound level meters (Parts 1 to 3)* as amended or replaced from time to time.

## **4 Testing procedures**

### **4.1 Testing procedures for motor vehicle horns and intruder alarms**

#### **4.1.1 Definitions**

1. In this Section:
  - a. 'alarm' means a motor vehicle intruder alarm.
  - b. 'horn' means a motor vehicle horn.
  - c. 'test site' means the site at which the noise level of a horn or an alarm is measured, or the noise emission characteristics of an alarm are recorded.

#### **4.1.2 Determining the noise level**

1. The person making the measurements of the noise level of a horn or an alarm is to make as many noise level measurements as are reasonably appropriate.
2. The noise level of a horn or an alarm is the greatest noise level reading obtained from the noise level measurements made of the horn or alarm. If that reading is not a whole number of decibels, it must be rounded down to the next lower whole number of decibels.

#### **4.1.3 Instruments for recording noise**

1. A recording device and/or software may be used in conjunction with the sound level meter to measure and acquire supplementary data on noise from a horn or alarm.

#### **4.1.4 Determining the character of noise emitted**

1. The frequency characteristics and the repeat rate of emitted sound may be determined by:
  - a. readings from a class 1 sound level meter capable of measuring sound level variations over time, or
  - b. post-processing data recordings of noise emitted by an alarm under test.

#### **4.1.5 Operation of horn or alarm**

1. A horn or an alarm under test:
  - a. must, as far as practicable, be directed towards the microphone, and
  - b. must be operated by means of a power supply that complies, as far as practicable, with the power supply by means of which the manufacturer of the horn or alarm recommends it to be operated, and
  - c. must be operated:
    - (i) in the case of a horn, for periods of not less than 5 seconds each in duration, and
    - (ii) in the case of an alarm, for periods of not less than 15 seconds each in duration.

#### **4.1.6 Alarms that are not attached to a motor vehicle**

1. This Section applies to an alarm that is not attached to a motor vehicle.
2. The test site:
  - a. must consist of an area having its perimeter at least 3 metres from any part of the horn or alarm under test, and
  - b. must be in the open air, and
  - c. must be covered with grass no more than 80 millimetres high or with concrete, asphalt or any other approved material.
3. While the noise level of the alarm is measured, the person making the measurement shall ensure that measurements are representative and are not substantially affected by environmental conditions or other variables.
4. That part of the alarm under test that emits noise:
  - a. must be mounted firmly on a stand, placed in the centre of the test site, that has a mass of not less than 30 kilograms, or 10 times the mass of the alarm, whichever is the greater, and
  - b. must, as far as practicable, be attached to the stand by means of the fittings recommended by the manufacturer, and
  - c. must be placed at a height of not less than 1.2 metres above the ground, and
  - d. must be placed, as far as practicable, vertically beneath the microphone, and
  - e. must be directed towards that microphone.
5. The microphone shall be placed in such position as the person making the measurements or recordings considers appropriate, but must not be placed:
  - a. at a height of less than 3.2 metres above the ground, or
  - b. at a distance of less than 2 metres from the alarm under test.
6. The microphone must face towards and have its nominal axis of maximum sensitivity (as indicated by the manufacturer of the microphone) directed towards the part of the horn or alarm under test that emits noise.

#### **4.1.7 Motor vehicle horns and intruder alarms that are attached to a motor vehicle**

1. This Section applies to a horn or alarm that is attached to a motor vehicle.
2. The test site:
  - a. must be in the open air, or
  - b. must be beneath:
    - (i) an open-sided canopy, or
    - (ii) a canopy supported by one wall (where that wall does not extend for more than 25% of the perimeter of the canopy), if no part of the canopy or its supports is within 3 metres of the horn or alarm under test or of the microphone used in conjunction with the measurement.

3. While the noise level of the horn or alarm is measured, or the noise emission characteristics of the alarm are measured, the person making the measurement shall ensure that measurements are representative and are not adversely affected by environmental conditions or other variables.
4. The microphone must be placed in such position as the person making the measurements or recordings considers appropriate, but must not be placed:
  - a. at a distance of less than 1.2 metres from the front of the vehicle, or
  - b. at a distance of less than 200 millimetres from the ground.
5. The microphone must face towards, and have its nominal axis of maximum sensitivity (as indicated by the manufacturer of the microphone) directed towards the part of the horn or alarm under test that emits noise.

## 4.2 Testing procedures for grass-cutting machines

1. The maximum noise level of grass-cutting machines to be displayed on a noise label may be determined using any of the following procedures:
  - a. in accordance with AS 3534 the test procedures (see 2a below)
  - b. in accordance with the European Union testing procedures for outdoor equipment (see 2b below)
  - c. in accordance with the alternative technical procedures set out in Section 4.3 (until 31 August 2019 only).
2. In this Section:
  - a. AS 3534 means: Australian Standard 3534 – 1988 *Acoustics – Methods for measurement of airborne noise emitted by powered lawnmowers, edge and brush cutters and string trimmers.*
  - b. The European Union procedures means: *Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors.*
3. Where the testing procedures result is derived as a sound pressure level (LpA) at 7.5 metres, it should be converted to a sound power level (LwA) for the purposes of determining the maximum noise limit of grass-cutting machines by:

$$LwA = LpA + 25 \text{ dB(A)}.$$

## 4.3 Alternative procedures for grass-cutting machines allowed until 31 August 2019

### 4.3.1 Test procedure for determining the maximum noise level of grass-cutting machines

This Section may be used to determine the maximum noise level of grass-cutting machines only until 31 August 2019.

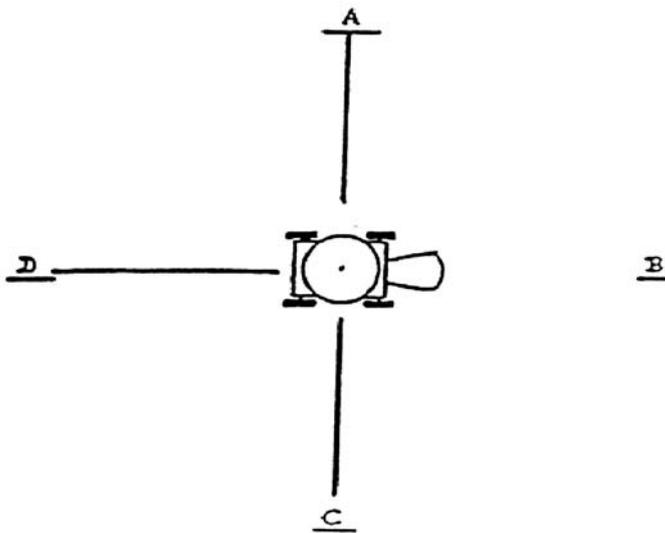
### 4.3.2 Definition

In this Section:

1. Test site means the site at which the noise level of a grass-cutting machine is measured.

### 4.3.3 Site requirements

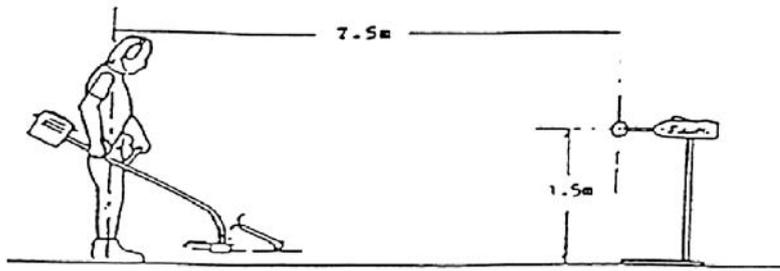
1. The test site:
  - a. must have its perimeter at least 30 metres from any part of the grass-cutting machine under test, and
  - b. must be in the open air, and
  - c. must be covered with grass not more than 80 millimetres high.
2. While the noise level of a grass-cutting machine is being measured the person making the measurement shall ensure that measurements are representative and are not adversely affected by environmental conditions or other variables.
3. The measurements must be made at each of the positions marked A, B, C and D in Figure 1.



**Figure 1: Typical test-site layout and microphone positions: grass-cutting machines (plan view)**

### 4.3.4 Position of microphone

1. The microphone:
  - a. must be placed at a height of 1.5 metres ( $\pm 0.1$  metres) above the ground, and
  - b. must be placed at a distance of 7.5 metres ( $\pm 0.2$  metres) from the centre of the test site, and
  - c. must face towards and have its nominal axis of maximum sensitivity (as indicated by the manufacturer of the microphone) directed towards the centre of the test site.
2. Figure 2 shows the position of the microphone relative to the noise source.



**Figure 2: Typical test-site layout and microphone positions: grass-cutting machines (side view)**

#### 4.3.5 Condition of grass-cutting machine

1. A lawn mower or ride-on mower must be fitted with an empty grass catcher if such a catcher is normally supplied with the mower.
2. Where a catcher is not normally supplied, or is supplied as an optional accessory, the mower must be fitted with a safety discharge chute if such a chute is supplied.
3. Where blades having varying degrees of grass lift are available, those providing the greatest amount of lift must be fitted.
4. A reel lawnmower must have the cutting cylinder and stationary blade correctly sharpened and set. For that purpose, the ability of the lawnmower to cut kraft paper weighing not less than 80 grams per square metre over the full cutting width, and at any position, of the cylinder when the cylinder is turned by hand is an acceptable indication that the cylinder and blade are correctly sharpened and set.
5. The grass-cutting machine under test must not have been previously run for more than 2 hours at the manufacturer's recommended operating speed.
6. Immediately before each series of measurements the correctly adjusted grass-cutting machine must be operated for a period of not less than 5 minutes at its maximum governed or ungoverned speed.
7. The height adjustment position of a rotary mower must be determined by the person making the measurements as being the position approximately midway between the maximum and minimum adjustable height positions (where fitted).
8. For edge cutters, the lower edge cutting tip of the blade or cord must be more than 30 millimetres but not more than 200 millimetres above the test pad.
9. A lawn mower or ride-on mower, and in particular the underside of the base plate and the cutting disc and blades assembly of a rotary mower, must be generally clean and free of all grass and dirt.
10. Where applicable, the engine oil level must be within the manufacturer's allowable tolerances.
11. Blades of reel mowers must be lubricated before and during operation.
12. For string trimmers and brush cutters, the lower edge of the cutting system must be not more than 200 millimetres above the test site.

13. When a harness is fitted, the attachment point, when the machine is balanced for the operator, must be not more than 785 millimetres and not less than 765 millimetres above the test site.
14. When a string trimmer or brush cutter is to be tested, only a nylon line head must be used.

#### 4.3.6 Engine operating conditions

1. The grass-cutting machine must be stationary during testing.
2. Where the grass-cutting machine is propelled by the engine, the controls must be set so the propulsion drive is activated and the driving wheels are raised above the test pad and, in all instances, the cutting mechanism is operating.
3. Where the grass-cutting machine is a ride-on mower, rollers may be placed under the driving wheels and the operator seated to operate the controls.
4. If a speed control governor (and throttle control) is fitted to the grass-cutting machine (not being a string trimmer or brush cutter), the engine must be operated with the speed control set on the maximum throttle setting or, if a governor is not fitted, the engine must be operated at the maximum speed attainable.
5. Grass-cutting machines powered by electric motors must be operated at the maximum pre-set motor speed set by the manufacturer.
6. For string trimmers and brush cutters, the engine speed that corresponds to the manufacturer's stated maximum power rating must be the speed ( $\pm 100$  revolutions per minute) at which the noise level measurements are taken.

#### 4.3.7 Test procedure

1. For a rotary mower, cylinder mower or edge cutter, the test pad must be positioned generally at the centre of the test site, and the rotary mower, cylinder mower or edge cutter must be located on the test pad so that:
  - a. for a rotary mower, the vertical axis passing through the geometric centre of the cutting blades coincides generally with the vertical axis passing through the geometric centre of the test pad, and
  - b. for a cylinder mower, the mid-point of the rectangular area formed by projecting the outer planes of the front and rear rollers or wheels coincides generally with the vertical axis passing through the geometric centre of the test pad, and
  - c. for an edge cutter, the cutting mechanism must be placed so that it generally coincides with the vertical axis passing through the geometric centre of the test pad.
2. For a ride-on mower, string trimmer or brush cutter, the ride-on mower, string trimmer or brush cutter must be located so that:
  - a. where a ride-on mower is driven through the front wheels, the vertical axis passing through the geometric centre of the machine coincides generally with the vertical axis passing through the geometric centre of the test site, or
  - b. where a ride-on mower is driven otherwise than through the front wheels, the vertical axis passing through the geometric centre of the cutting disk coincides generally with the vertical axis passing through the geometric centre of the test site, or

- c. for a string trimmer or brush cutter, the operator is positioned approximately on the vertical axis passing through the geometric centre of the test site as shown in Figure 2 in Section 4.3.4.

#### 4.3.8 Determining the noise level

1. The person making the measurements is to make as many noise level measurements of the grass-cutting machine as are reasonably appropriate.
2. The maximum noise level (LpA) of a grass-cutting machine is to be the average of the greatest noise level readings obtained at the positions A, B, C and D (shown in Figure 1 in Section 4.3.3), as calculated in accordance with this Section, taken, if the average reading is not a whole number of decibels, to the next lower whole number of decibels.
3. An A-weighted sound pressure level must be calculated from the measured values of the A-weighted sound pressure levels (LpAi) from the following equation:

$$LpA = \frac{10 \log_{10} \sum_{i=1}^N 10^{0.1 LpAi}}{N}$$

Where:

LpA is the A-weighted sound pressure level

LpAi is the A-weighted sound pressure level at the i'th measured position, in decibels

N is the total number of measured points.

4. If the range of values of LpAi does not exceed 5 dB(A), the A-weighted sound pressure level is to be the arithmetical mean of those values.

## 4.4 Testing procedures for new air conditioners

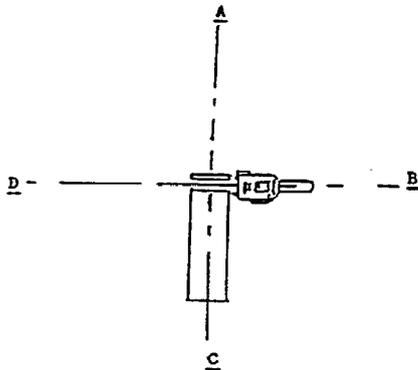
The maximum noise level of a domestic air conditioner to be displayed on a noise label, is to be determined using the test procedure set out in the document *Technical Basis for the Regulation of Noise Labelling of New Air Conditioners in Australia* published by the Australian Environment Council, July 1984.

## 4.5 Testing procedures for chainsaws

### 4.5.1 Site requirements

1. The site at which the noise level of a chainsaw is measured:
  - a. must have its perimeter at least 30 metres from any part of the chainsaw under test, and
  - b. must be in the open air, and
  - c. must be covered with grass not more than 80 millimetres high or with concrete, asphalt or any other approved material or with a mixture of those coverings.
2. While the noise level of a chainsaw is being measured, the person making the measurement shall ensure that measurements are representative and are not adversely affected by environmental conditions or other variables.

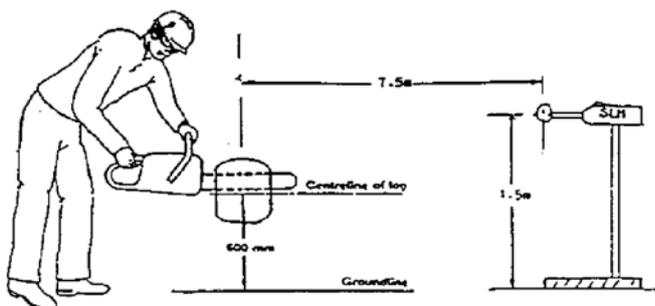
3. The measurements must be made at each of the positions marked A, B, C and D in Figure 3.



**Figure 3: Typical test-site layout and microphone positions: chainsaws (plan view)**

#### 4.5.2 Position of microphone

1. The microphone used to measure the noise level of a chainsaw:
  - a. must be placed at a height of 1.5 metres ( $\pm 0.1$  metres) above the ground, and
  - b. must be placed at a distance of 7.5 metres ( $\pm 0.2$  metres) from the nearest point of the motor of the chainsaw under test to the microphone, and
  - c. must face towards the motor of the chainsaw, and
  - d. must have its nominal axis of maximum sensitivity (as indicated by the manufacturer of the microphone) directed towards the motor of the chainsaw.
2. Figure 4 shows the position of the microphone relative to the noise source.



**Figure 4: Typical test-site layout and microphone positions: chainsaws (side view)**

### 4.5.3 Operation of chainsaw during measurement

1. Noise measurements must be taken while the chainsaw is cutting a log.
2. The noise level measurement must be taken at the engine speed that corresponds to the manufacturer's stated maximum power rating.
3. Immediately before the noise level of a chainsaw is measured, the motor of the chainsaw must be operated for not less than 5 minutes.
4. The position of the log and chainsaw during cutting must be as shown in Figure 4 in Section 4.5.2.
5. When the noise level of a chainsaw is being measured:
  - a. the chainsaw must be held in a horizontal position by the operator and operated in a manner appropriate to normal cross-cutting, and
  - b. the guide bar must be fed into the log and the load applied so that the engine speed is the same as, or within 300 revolutions per minute of, the speed at which maximum power is developed according to the manufacturer's specification, and
  - c. the slices of timber cut must not be more than 25 millimetres thick, and
  - d. full throttle must be maintained during the cutting operation.

### 4.5.4 Determining the noise level

1. The person making the measurements is to make as many noise level measurements of the chainsaw as are reasonably appropriate.
2. The maximum noise level ( $L_{pA}$ ) of a chainsaw is to be the average of the greatest noise level readings obtained from the positions A, B, C and D (shown in Figure 3 in Section 4.5.1), as calculated in accordance with this Section. If the average reading is not a whole number of decibels, it must be rounded down to the next lower whole number of decibels.
3. An A-weighted sound pressure level must be calculated from the measured values of the A-weighted sound pressure levels ( $L_{pAi}$ ) from the following equation:

$$L_{pA} = \frac{10 \log_{10}}{N} \sum_{i=1}^N 10^{0.1 L_{pAi}}$$

Where:

$L_{pA}$  is the A-weighted sound pressure level

$L_{pAi}$  is the A-weighted sound pressure level at the  $i$ 'th measured position, in decibels

$N$  is the total number of measured points.

4. If the range of values of  $L_{pAi}$  does not exceed 5 dB(A), the A-weighted sound pressure level is to be the arithmetical mean of those values.
5. Where the testing procedures result is derived as a sound pressure level at 7.5 metres, it should be converted to a sound power level ( $L_{wA}$ ) for the purposes of determining the maximum noise level of a chainsaw by:

$$L_{wA} = L_{pA} + 25 \text{ dB(A)}.$$

## 4.6 Testing procedures for mobile garbage compactors

### 4.6.1 Site requirements

1. The test site at which the noise level of a mobile garbage compactor is measured must:
  - a. be in the open air, and
  - b. be free from obstructions, and
  - c. have a perimeter at least 20 metres from the mobile garbage compactor under test, and
  - d. be covered with concrete, asphalt or other approved material, or a mixture of those coverings.
2. While the noise level of a mobile garbage compactor is being measured, the person making the measurement shall ensure that measurements are representative and are not adversely affected by environmental conditions or other variables.

### 4.6.2 Position of mobile garbage compactor

1. The mobile garbage compactor must be positioned in the approximate centre of the test site.

### 4.6.3 Position of microphone

1. The microphone:
  - a. must be placed at a height of 1.5 metres ( $\pm 0.1$  metres) above the ground, and
  - b. must (in any sequence) be placed at a distance of 15 metres ( $\pm 0.2$  metres) from the approximate geometric centre of the vehicle at each of the four points on the principal axes of the vehicle, and
  - c. must have its nominal axis of maximum sensitivity (as indicated by the manufacturer of the microphone) directed towards the mobile garbage compactor under test.

### 4.6.4 Operation of mobile garbage compactor

1. The controls of the mobile garbage compactor being tested must be operated in such manner as to cause the compactor to operate over full compaction cycles.
2. The bin lifters must not be operated during the tests unless this is necessary for operation of the compactor.
3. The tests must be conducted without any garbage present in the compactor body or loading chute.
4. The compactor must be operated over as many cycles as the person making the measurements considers necessary to obtain representative results.
5. The compactor must be operated over full compaction cycles for a minimum period of 15 minutes prior to conducting the noise tests.
6. Relief valves must be set to operate at the pressures or flows, or pressures and flows, specified by the manufacturer of the compactor.

#### 4.6.5 Engine rotation speed

1. The object of this Section is to provide the rotation speed at which the engine driving the hydraulic pump must be operated.
2. For a mobile garbage compactor with a hydraulic pump the rotation speed of which cannot be increased by operation of the accelerator pedal while the compactor is engaged, the engine speed during the test must be set to the governed engine speed as specified by the manufacturer of the compactor unit.
3. If the speed of the hydraulic pump can be altered by use of the accelerator pedal while the compactor is engaged, the speed of the engine driving the hydraulic pump must be:
  - a. the greater of the engine speed that is automatically obtained when the compactor is engaged and an engine speed that provides between 80% and 85% of the speed of the pump at which the compactor operation is disengaged or its performance is reduced or limited:
    - (i) by the use of a dump circuit, a pump unloader system or a clutch on the drive to the pump, or
    - (ii) by other appropriate means built into the compactor unit to limit the flow of hydraulic fluid or to limit the engine rotation speed, or
  - b. a rotation speed between 95% and 100% of the maximum speed of the engine where the compactor has no facility for limiting the flow or pressure, or flow and pressure, applied to the compaction system, or
  - c. where a variable displacement pump is used, the design speed for normal operation of the compaction system as stated by the compactor manufacturer.

#### 4.6.6 Instruments to test rotation speed

1. A suitable engine or pump rotation speed measurement device capable of measuring the maximum rotation speed to within ( $\pm$ ) 50 revolutions per minute of the actual speed of the engine or hydraulic pump during a compaction cycle must be used to measure the engine or pump rotation speed during the test.

#### 4.6.7 Determining the noise level

1. The person making the measurements is to make as many noise level measurements of the mobile garbage compactor as are reasonably appropriate.
2. The compactor must be operated with the engine powering the hydraulic pump operating at a speed determined in accordance with this Section, and the maximum sound pressure level must be observed and recorded with an accuracy to the first decimal place at each of the four microphone positions on the principal axes of the vehicle.
3. The mean noise level of a mobile garbage compactor is the logarithmic average of the maximum  $L_{eq}$  noise level of a representative number of measurements at those four positions but, if the range of levels is 5 dB(A) or less, the arithmetical average may be used instead.
4. If the average so determined is not a whole number of decibels, it must be rounded down to the next lower whole number of decibels.
5. An A-weighted sound pressure level must be calculated from the measured values of the A-weighted sound pressure levels ( $L_{pAi}$ ) from the following equation:

$$LpA = \frac{10 \log_{10}}{N} \sum_{i=1}^N 10^{0.1 LpAi}$$

Where:

$LpA$  is the A-weighted sound pressure level

$LpAi$  is the A-weighted sound pressure level at the  $i$ 'th measured position, in decibels

$N$  is the total number of measured points.

6. If the range of values of  $LpAi$  does not exceed 5 dB(A), the A-weighted sound pressure level is to be the arithmetical mean of those values.
7. Where the testing procedures result is derived as a sound pressure level at 15 metres, it should be converted to a sound power level (LwA) for the purposes of determining the maximum noise level of a garbage compactor by:

$$LwA = LpA + 32 \text{ dB(A)}.$$

#### 4.7 Testing procedures for new pavement breakers and mobile air compressors

The maximum noise level of new pavement breakers and mobile air compressors is to be determined using the test procedure set out in the document *Technical Basis for the Regulation of Noise Labelling of New Pavement Breakers and Mobile Air Compressors in Australia* published by the Australian Environment Council, May 1985.

## 5 Noise labelling

1. The following articles must be marked with a label of the size, design, form and construction defined in clause 3 of the Regulation and as prescribed in Section 6.1 and 7.2 as appropriate. Articles must not be sold without the prescribed noise label attached.
  - a. lawn mowers with cutting widths of between 620 millimetres and 950 millimetres
  - b. ride-on mowers
  - c. edge cutters
  - d. string trimmers
  - e. brush cutters
  - f. other grass-cutting machines
  - g. chainsaws
  - h. domestic air conditioners
  - i. mobile air compressors
  - j. pavement breakers
  - k. mobile garbage compactors.

2. The Regulation:
  - a. allows the use of European Union (EU) testing, labelling and limit requirements for the following gardening equipment –
    - (i) mowers
    - (ii) electric line trimmers and lawn edgers, and
    - (iii) chainsaws
  - b. deems that the above articles, when tested and labelled in accordance with EU requirements, comply with the Regulation and noting that where limits apply, these are to be expressed in terms of a sound power level
  - c. permits noise labels to show maximum noise levels expressed in terms of sound pressure level until 31 August 2019
  - d. requires noise labelling specifying the sound power level from 1 September 2018.
3. Where the testing procedures for articles referenced within this Approved Method document results in a noise level expressed as a sound pressure level (LpA) at 7.5 metres, it may be converted to a sound power level (LwA) for the purposes of determining compliance with the prescribed noise limit and/or for the purpose of noise labelling by:  
$$LwA = LpA + 25 \text{ dB(A)}.$$
4. European Union testing, labelling and limit requirements are defined in:
  - a. *Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors.*
5. The Regulation requires labelling for domestic air conditioners to comply with the document *Technical Basis for the Regulation of Noise Labelling of New Air Conditioners in Australia* published by the Australian Environment Council, July 1984.

## 6 Noise labelling requirements

### 6.1 Noise label permitted until 31 August 2019

#### 6.1.1 Noise label format for grass-cutting machines valid until 31 August 2019

The noise label format for grass-cutting machines can be found at:

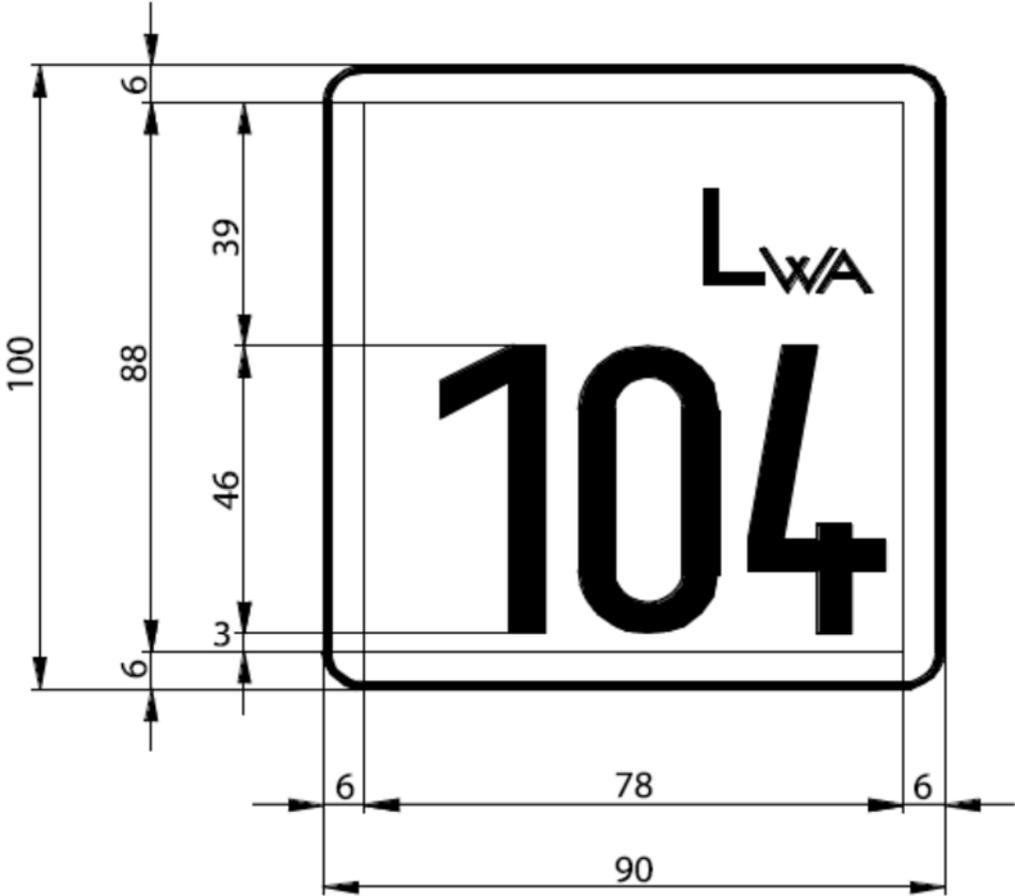
[www.epa.nsw.gov.au/resources/noise/NewGrassCuttingMachinesNoiseLabelling.pdf](http://www.epa.nsw.gov.au/resources/noise/NewGrassCuttingMachinesNoiseLabelling.pdf)

#### 6.1.2 Noise label format for new chainsaws valid until 31 August 2019

The noise label format for new chainsaws can be found at:

[www.epa.nsw.gov.au/resources/noise/NewChainsawsNoiseLabelling.pdf](http://www.epa.nsw.gov.au/resources/noise/NewChainsawsNoiseLabelling.pdf)

**6.2 Noise label format for articles (excluding new air conditioners) permitted from 1 September 2019**



Note that new air conditioners must be tested and labelled in accordance with the procedures described in Section 4.