



SOUND LEVEL DATA for Percussion Play® Outdoor Musical Instruments.

CONDITIONS/DESCRIPTION OF PROCEDURE

Instruments were played vigorously by two players together with appropriate sound initiator as provided (Mallets/Hands/Paddles). Recordings taken over timed intervals at distances of <3M(10FT), 10M(33FT) and 50M(165FT) in a large open space. **(Background noise levels remained at an average (A-weighted Leq) of ~40db.)**

Recording Instrument - Class 1 Precision Sound Analyser (Calibrated)

All measurements are A-weighted Leq given in dB (Decibels)

GLOSSARY

Leq - (Equivalent continuous noise level). The preferred method to describe Sound Levels that vary over time, resulting in a single decibel value which takes into account the total Sound Energy over the period of time of interest. Noise levels often fluctuate over a wide range with time. For example in the middle of the night the level might go down as low as 30dB(A) with occasional passing vehicles of 70dB(A) or more.

A-weighting. The A-weighting filter covers the full audio range - 20 Hz to 20 kHz and the shape is similar to the response of the human ear at the lower levels.

DESCRIPTION	50M(165FT)	10M(33FT)	<3M(10FT)
RAINBOW SAMBAS/CONGAS	65	77	90
	66	78	93
	64	76	94
Average Result (Rounded to nearest dB)	<u>65</u>	<u>77</u>	<u>92</u>

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DESCRIPTION	50M(165FT)	10M(33FT)	<3M(10FT)
TUBULAR BELLS	53	59	88
	53	60	92
	53	64	93
Average Result (Rounded to nearest dB)	<u>53</u>	<u>61</u>	<u>91</u>
AKADINDA	47	65	90
	51	62	85
	55	63	86
Average Result (Rounded to nearest dB)	<u>51</u>	<u>63</u>	<u>87</u>
MARIMBA/WALL MOUNTED MARIMBA Fibreglass (GRP) Bars	48	68	93
	53	65	88
	58	65	90
Average Result (Rounded to nearest dB)	<u>53</u>	<u>66</u>	<u>90</u>
DUO/CADENZA/SANSA-RIMBA Aluminium Bars	54	64	91
	55	67	91
	54	62	98
Average Result (Rounded to nearest dB)	<u>54</u>	<u>64</u>	<u>93</u>
DUO/CADENZA/SANSA-RIMBA Fibreglass (GRP) Bars	59	66	91
	57	68	91
	58	68	88
Average Result (Rounded to nearest dB)	<u>58</u>	<u>67</u>	<u>90</u>
DUO/CADENZA/SANSA-RIMBA IPE (Hardwood) Bars	50	59	80
	51	58	81
	51	60	77
Average Result (Rounded to nearest dB)	<u>51</u>	<u>59</u>	<u>79</u>
GRAND MARIMBA	60	70	90
	60	71	91
	62	71	93
Average Result (Rounded to nearest dB)	<u>61</u>	<u>71</u>	<u>91</u>
EMPEROR CHIMES	58	64	93
	57	66	99
	56	70	99
Average Result (Rounded to nearest dB)	<u>57</u>	<u>67</u>	<u>97</u>

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DESCRIPTION	50M(165FT)	10M(33FT)	<3M(10FT)
HARMONY	53	64	88
	54	67	91
	55	63	91
Average Result (Rounded to nearest dB)	<u>54</u>	<u>65</u>	<u>90</u>
Small/Large BABEL DRUM	47	58	77
	49	59	80
	48	60	79
Average Result (Rounded to nearest dB)	<u>48</u>	<u>59</u>	<u>79</u>
TEMBOS	51	58	86
	51	62	90
	52	58	88
Average Result (Rounded to nearest dB)	<u>51</u>	<u>59</u>	<u>88</u>
BELL LYRE	48	59	79
	50	61	81
	51	62	82
Average Result (Rounded to nearest dB)	<u>50</u>	<u>61</u>	<u>81</u>
FREECHIMES/MIRROR CHIMES	50	61	85
	53	65	87
	53	61	88
Average Result (Rounded to nearest dB)	<u>52</u>	<u>62</u>	<u>87</u>
CAJON	44	54	72
	45	53	68
	47	54	70
Average Result (Rounded to nearest dB)	<u>45</u>	<u>54</u>	<u>70</u>
SONORA/CHERUB	54	67	92
	57	70	92
	56	69	91
Average Result (Rounded to nearest dB)	<u>56</u>	<u>69</u>	<u>92</u>
PAPILIO	55	64	92
	56	65	90
	53	66	92
Average Result (Rounded to nearest dB)	<u>55</u>	<u>65</u>	<u>91</u>