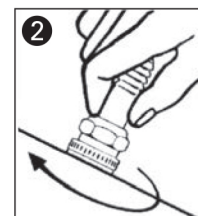
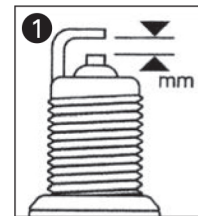


SPARK PLUG INSTALLATION TIPS

- Refer to current NGK catalogue for correct spark plug selection
- Check condition and cleanliness of threads in cylinder head
- Ensure plug is gapped according to vehicle manufacturers specification (*fig 1*)
- Multi ground electrode and precious metal plugs should not be regapped - visual inspection only
- Install new spark plug *by hand* until it seats - (*fig 2*) a length of rubber tubing pushed over the insulator can be a useful aid for plug installation where access is difficult
- Tighten to specified torque setting as shown in the chart below (*fig 3*)
- If a torque wrench is unavailable then refer to vehicle/engine manufacturers installation instructions or the tightening angle advice which is displayed on current NGK packaging (excluding specialist race plugs). Note that this angle advice can differ between part numbers due to individual spark plug design (e.g. seating type, thread diameter and gasket material)
- It is important not to over or under tighten spark plugs during installation. Over-tightening can lead to distortion of the spark plug. Under-tightening can cause overheating due to poor heat dissipation. *In extreme cases incorrect tightening can cause spark plug breakage and/or engine damage*
- NGK does not recommend the application of lubricant to spark plug threads as the resultant reduction of frictional forces at the thread faces will render the torque charts inaccurate and over tightening could occur
- If a gasket type spark plug is re-installed, it should only require a further 1/12 of a turn after it has been seated
- Always carefully use the correct tools for removal/installation to prevent damage to the spark plug or engine
- Inspect spark plug cover and renew if necessary



3	FOR FLAT SEAT TYPE (WITH GASKET)					TAPER SEAT TYPE		
	Thread Ø	18 mm	14 mm	12 mm	10 mm	8 mm	18 mm	12 & 14 mm
Cast iron head	35-45Nm (3.5-4.5kgm) (25.3-32.5lbs ft)	25-35Nm (2.5-3.5kgm) (18.0-25.3lbs ft)	15-25Nm (1.5-2.5kgm) (10.8-18.0lbs ft)	10-15Nm (1.0-1.5kgm) (7.2-10.8lbs ft)	-	-	20-30Nm (2.0-3.0kgm) (14.5-21.6lbs ft)	15-25Nm (1.5-2.5kgm) (10.8-18.0lbs ft)
Aluminium head	35-40Nm (3.5-4.0kgm) (25.3-28.9lbs ft)	25-30Nm (2.5-3.0kgm) (18.0-21.6lbs ft)	15-20Nm (1.5-2.0kgm) (10.8-14.5lbs ft)	10-12Nm (1.0-1.2kgm) (7.2-8.7lbs ft)	8-10Nm (0.8-1.0kgm) (5.8-7.2lbs ft)	-	20-30Nm (2.0-3.0kgm) (14.5-21.6lbs ft)	10-20Nm (1.0-2.0kgm) (7.2-14.5lbs ft)

Important: Some spark plugs differ in gasket design or material, refer to tightening advice on specific spark plug packaging

SPARK PLUG GAP SETTINGS

Important: Spark plug gap settings are given in millimetres. Practical equivalents are shown below.

mm	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.6	1.8	2.0
ins	.016	.020	.024	.028	.032	.035	.039	.043	.051	.055	.059	.063	.071	.079