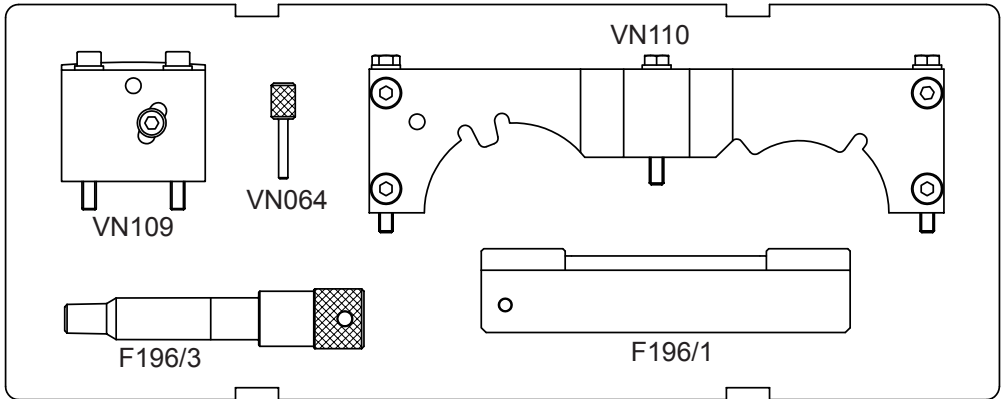


 **Beta**
1461/C23B



EN

INSTRUCTIONS FOR USE



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EN

TIMING TOOL KIT FOR OPEL 1.0 - 1.2 - 1.4 ECOFLEX, CHEVROLET 1.2 - 1.4 PETROL ENGINES

APPLICATION

Brand	Model	Engine	Engine code
Opel	Corsa, Astra, Meriva, Zafira	1.0-1.2-1.4 ecoFLEX	A10XEP, A12XEL, A12XER, LUJ/A14NET, LUJ/A14NEL, LUH/A14NEL, LDD/A14XER, LDD/A14XEL
Chevrolet	Aveo	1.2-1.4	LWD/A12XEL, LDC/A12XER, L2Q/A12XEL, LDD/A14XER, LDD/A14XEL

Engine code	OEM code						
	KM-953-A	EN-49977-100	KM-952	EN-49979	KM-956-1	EN-49977-200	KM-955-1
A10XEP	•	•	•	•	•	•	•
A12XEL	•	•	•	•	•	•	•
A12XER	•	•	•	•	•	•	•
LUJ/A14NET	•	•	•	•	•	•	•
LUJ/A14NEL	•	•	•	•	•	•	•
LUH/A14NEL	•	•	•	•	•	•	•
LDD/A14XER	•	•	•	•	•	•	•
LDD/A14XEL	•	•	•	•	•	•	•
LWD/A12XEL	•	•	•	•	•	•	•
LDC/A12XER	•	•	•	•	•	•	•
L2Q/A12XEL	•	•	•	•	•	•	•

PARTS:

Beta code	OEM code	Description
F196/1	KM-953-A	Camshaft locking tool
VN110	EN-49977-100	Camshaft positioning sensor disc adjustment tool
F196/3	KM-952	Crankshaft locking tool
VN109	EN-49977-200	Intake camshaft adjustment device locking tool
VN064	KM-955-1	Chain tensioner locking pin

Special precautions - Read carefully

- Disconnect the battery earth leads (check the radio code, if available)
- Remove the spark or glow plugs to make the engine turn easier
- Do not use any cleaning fluids on belts, pinions or tensioners
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise, unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening the crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand, and to re-check the crankshaft and camshaft timing positions
- Camshafts and crankshafts may only be turned with the chain/belt drive mechanism fully installed.
- Do not turn the crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the manufacturer's service manual or the supplied instruction book
- Incorrect or out of phase engine timing results in damage to the valves