

Non-electrical diagnosis test modules: Important note on non-electrical diagnosis NED

Starting from **ISTA version 4.18**, the **NED test modules in ISTA** and **NED documents in AIR** are no longer available.

Individual scopes of NED are included in ISTA in der **electrical diagnosis** starting from version 4.18 (under "Current fault patterns") and in **PuMA/SIB**.

Going forward, new topics shall be published only via PuMA/SIB.

AM1101_00597 - Engine, noise

Brief description of the test module for non-electrical diagnosis:

Engine noise

Applies to:

Engine: N55, N56

Content (excerpt):

- Clicking noise for approx. 10 s after cold start
- Increased exhaust noise after the cold start
- Rattling noise from the valve gear
- Squeaking noise after switching on electrical devices
- Hissing noise when pressing the brake pedal after shutting down the engine
- Whistling at idle speed
- Whirring / rattling from the area of the coolant line from 2000 rpm
- Clicking sound after the engine stop
- Clattering noise from engine compartment after the wake up of the Digital Motor Electronics

Vehicle communication: Yes

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 01 noise / engine noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM1101_00598 - Engine, noise

Brief description of the test module for non-electrical diagnosis:

Engine noise

Applies to:

Engine: N55, N56

Content (excerpt):

- Clicking noise for approx. 10 s after cold start
- Increased exhaust noise after the cold start
- Rattling noise from the valve gear
- Squeaking noise from the belt drive
- Squeaking noise after switching on electrical devices
- Hissing noise when pressing the brake pedal after shutting down the engine
- Whistling at idle speed
- Whirring / rattling from the area of the coolant line from 2000 rpm
- Clicking sound after the engine stop
- Clattering noise from engine compartment after the wake up of the Digital Motor Electronics

Vehicle communication: Yes

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 01 noise / engine noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM1104_00491 - Operating fluids leak from engine

Brief description of the test module for non-electrical diagnosis:

Engine operating fluid leak

Applies to:

Engine:B47

Content (excerpt):

- Oil leak from the blow-by pipe (oil residue in the area of the cylinder head gasket)

Vehicle communication: Yes

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 04 fluid leaks / engine leaks

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM2301_00285 - Manual gearbox noise

Brief description of the test module for non-electrical diagnosis:

Manual gearbox noise

Applies to:

BMW, MINI

Content (excerpt):

- Noise on engagement
- Creaking noise when operating the clutch pedal
- Noises when starting the engine
- Vibrations in the clutch pedal
- Noise when the engine is being switched off
- Whining when selecting lower gear

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 01 Drivetrain / 01 Noise / Manual gearbox noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM2301_00549 - Manual gearbox noise

Brief description of the test module for non-electrical diagnosis:

Manual gearbox noise

Applies to:

F39 ,F45 ,F46 ,F48 ,F52 ,F54 ,F55 ,F56 ,F57 ,F60

with manual transmission

Content (excerpt):

- Clicking noise from the transmission with raised vehicle
- Humming / droning noise when accelerating up to approx. 2000 rpm

Vehicle communication: No

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 01 noise / gearbox noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM3101_00552 - Front end noise

Brief description of the test module for non-electrical diagnosis:

Front end noise

Applies to:

F39, F45, F46, F48, F49, F52

Content (excerpt):

- Noises when driving on a rough road surface
- Noises when driving on a level roadway
- Noise when steering
- Noise when cornering
- Noise when parking, manoeuvring, reversing
- Noises from the area of steering gear

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 02 Chassis / 01 Noise / Front-end noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM3301_90574 - Rear axle differential noise

Brief description of the test module for non-electrical diagnosis:

Noise from rear axle differential

Applies to:

BMW, RR

Content (excerpt):

- Metallic clacking noise when driving off
- Knocking noise during load reversal
- Groaning noise in the 1st gear, 2nd gear and reverse gear
- Permanent grinding noise
- Howling noise from 160 km/h when loaded

Vehicle communication: Yes

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 01 noise / rear axle differential noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM3304_00149 - Rear axle differential leaks vehicle fluid

Brief description of the test module for non-electrical diagnosis:

Rear axle differential leaking operating fluids

Applies to:

E84, F01, F02, F03, F04, F06, F07, F10, F11, F12, F13, F15, F16, F18, F20, F21, F22, F23, F25, F26, F30, F31, F32, F33, F34, F35, F36, F39, F80, F82, F83, F87, F90, F91, G01, G02, G08, G11, G12, G30, G31, G32, G38, RR1, RR2, RR3, RR4, RR5, RR6, RR11, RR12

Content (excerpt):

- Various leaks in the rear axle differential

Vehicle communication: No

ISTA path:

Activities / Information search / Non-electrical diagnosis / 01 drive / 04 vehicle fluid leaks / rear axle differential leaks vehicle fluids

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM3401_00328 - Brake noise

Brief description of the test module for non-electrical diagnosis:

Brakes, noise

Applies to:

E70, E71, E72, E81, E82, E84, E87, E88, E89, E90, E91, E92, E93, F01, F02, F03, F04, F06, F07, F10, F11, F12, F13, F15, F16, F18, F20, F21, F22, F23, F25, F26, F30, F31, F32, F33, F34, F35, F36, F39, F45, F46, F48, F49, F52

Content (excerpt):

- Squeaking noise in the area of the brakes
- Rattling noise in the area of the brakes
- Ticktock noise in the area of the brakes
- Groaning noise in the area of the brakes
- Groaning noise in the area of the brakes

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 02 Chassis / 01 Noise / Brake noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5003_00450 - Water ingress, complete vehicle

Brief description of the test module for non-electrical diagnosis:

Complete vehicle water ingress

Applies to:

F39, F45, F46, F48, F49

Content (excerpt):

- Traces of water in the headliner/panorama glass roof/convertible top
- Traces of water in the area of the driver's side / passenger's side
- Traces of water in the area of the D-pillar
- Traces of water in the area of the roller cover for luggage compartment / luggage compartment

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 03 Water ingress / Complete vehicle water ingress

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5101_00337 Noise in the operating area

Brief description of the test module for non-electrical diagnosis:

Cockpit noise

Applies to:

F39, F45, F46, F48, F49

Content (excerpt):

- Noise from around the top of the instrument panel
- Noise from around the driver's side / passenger's side of the instrument panel
- Noises in the area of the centre instrument panel
- Noise from area of centre console
- Noises in the area of the interior mirror

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 03 Body / 01 Noise / Cockpit Noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5101_00540 - Rear area, noise

Brief description of the test module for non-electrical diagnosis:

Noise from rear area

Applies to:

F39

Content (excerpt):

- Noises in the area of the grab handle on the headliner
- Noises in the area of the top C-pillar / luggage compartment
- Noises in the area of the tailgate / tailgate lock

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 03 Body / 01 Noise / Rear area Noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5101_00541 - Door noise

Brief description of the test module for non-electrical diagnosis:

Noise of doors

Applies to:

F39

Content (excerpt):

- Interference noises when driving on a rough road surface

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 01 Noise / Door noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5102_00350 - Door lock malfunction

Brief description of the test module for non-electrical diagnosis:

Door lock malfunction

Applies to:

F15, F16, F39, F45, F46, F48, F49, F52, F60

Content (excerpt):

- Problems when opening / closing
- Problems when locking / unlocking
- Door opens independently
- Malfunction of soft-close automatic
- Outside door handle malfunction

Vehicle communication: No

ISTA path:

- Actions / Information search / Non-electrical diagnosis / 03 body / 02 Malfunction / door lock malfunction

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5102_00413 - Tailgate malfunction

Brief description of the test module for non-electrical diagnosis:

Tailgate malfunction

Applies to:

E84, F01, F02, F04, F06, F07, F10, F11, F12, F13, F15, F16, F18, F20, F21, F22, F25, F26, F30, F31, F32, F34, F35, F36, F39, F45, F46, F48, F49, F52, F80, F82, F85, F86, F87, F90, G01, G02, G11, G12, G30, G31, G32, G38, I01, I12

Content (excerpt):

- CC-Message "Tailgate open"
- Tailgate does not open smoothly (possibly loud bang when opening)
- Contactless tailgate opening (smart-opener) inoperative
- Tailgate opens independently
- Significant effort required to close the tailgate (no automatic tailgate operation)

Vehicle communication: Yes

ISTA path:

Actions / Information search / Non-electrical diagnosis / 03 body / 02 Malfunction / tailgate malfunction

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5205_00469 - Leather, optical complaint

Brief description of the test module for non-electrical diagnosis:

Complaint regarding the visual appearance of the leather

Applies to:

BMW, BMWi

Market: Germany

Content (excerpt):

- Wrinkled leather upholstery
- Leather upholstery creasing
- Leather upholstery, major wear
- Leather upholstery crack

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 03 Body / 05 Optical complaints / Optical complaint regarding front seats

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5401_00557 - Panorama roof, noise

Brief description of the test module for non-electrical diagnosis:

Noise from the panorama glass roof

Applies to:

F39, F52

Content (excerpt):

- Wind noises in the area of the panorama roof
- Noises while opening / closing the glass slide/tilt roof panel
- Noises while opening / closing the roller sunblind
- Noises while driving or in case of agitation

Vehicle communication: No

ISTA path:

Activities / Information search / NED / 03 Body / 01 Noise / Panorama roof noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5402_00538 - Panorama roof malfunction

Brief description of the test module for non-electrical diagnosis:

Panorama glass roof malfunction

Applies to:

F39, F52

Content (excerpt):

- Glass slide/tilt roof panel of the panorama roof reverses
- Glass slide/tilt roof panel not functioning

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 02 Malfunction / Panoramic glass roof malfunction

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM5403_00539 - Water ingress in the roof

Brief description of the test module for non-electrical diagnosis:

Roof, water ingress

Applies to:

F39, F52

Content (excerpt):

- Complaint regarding draining of water

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 03 Water ingress / Panoramic glass roof water ingress

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM6303_90577 - Headlight fogging

Brief description of the test module for non-electrical diagnosis:

Headlight fogging

Applies to:

All BMWs and Mini

without F25

Content (excerpt):

- Headlight misted over
- Reflection of light source on the headlight lens

Vehicle communication: No

ISTA path:

Activities / Information search / Function structure / 05 Non-electrical diagnosis - NED / 03 Body / 05 Optical complaint / Front light combination, optical complaint

Important information:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM6401_00392 - Heating and air conditioning system noise

Brief description of the test module for non-electrical diagnosis:

Noise in the Integrated automatic heating/air conditioning system (IHKA)

Applies to:

F39, F45, F46, F48, F49, F52

Content (excerpt):

- Noise when the fan is running
- Noise when changing the settings (e.g. air distribution, fan setting)
- Noise when the engine is running, with and without air conditioning operation

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 01 Noise / Heating and air-conditioning system noise

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.

AM6402_00591 - Air conditioning malfunction

Brief description of the test module for non-electrical diagnosis:

Air conditioning, malfunction

Applies to:

E70, E71, E72, E81, E82, E84, E87, E88, E89, E90, E91, E92, E93, F2x, F3x, F8x, F15, F16, F25, F26, F85, F86

Content (excerpt):

- Escape of warm air when air conditioning set to cool / air conditioning failure
- Significant reduction of air flow
- Air conditioning system functions without difficulty again 10 minutes after switching the vehicle off

Vehicle communication: Yes

ISTA path:

Activities / Information search / NED / 03 Body / 02 Malfunction / Air conditioning malfunction

Important note:

The fault patterns in the test module depend to some extent on the production period, optional equipment, motorisation and other features. It is therefore possible that not all content or different content to that described above may be displayed for different vehicles.