General air-conditioning leak detection | HELLA

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General information

The detection of leaks and the methods to be used for troubleshooting have already been described in a great deal of technical information. When troubleshooting, however, the service connections (high and low pressure) on the vehicle are often overlooked as the source of the refrigerant loss.

Low pressure and high pressure connection

During maintenance/inspection of the air-conditioning system, the high and low pressure connections on the vehicle are connected to the air-conditioning service device. During a search for a leak, the device usually remains connected, which means that the service connections themselves cannot be checked for leaks.

Testing without a service device

As soon as the vehicle has been serviced or the system filled with test gas to check for leaks, service devices should be disconnected from the vehicle's connections. This is the only way, with the help of an electronic leak detector (Fig.), to check the valve inserts of the service connections for leaks. Sometimes they are the cause of refrigerant loss.

Service tip

If the leak detection is carried out directly after disconnecting a service device, the immediate area of the vehicle-side connections should be carefully blown out with compressed air. This is recommended to prevent a misdiagnosis (caused by the effects of refrigerant or test gas residues during disconnection).