HOW DO WE TEST YOUR ABS BRAKE MODULE AND HYDRAULIC BLOCK?

XeMODeX TECHNOLOGY

FAILURE CONFIRMATION

Your ABS module and hydraulic block will undergo a series of tests on our specialized test bed to confirm the failure symptoms you've given us.

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TEST CONNECTOR

Every single ABS module repair listed on our website has a custom-made test connector. The wiring pinout is identical to the vehicle the module is from to make sure your module is treated properly.

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GOLDEN ABS UNITS

In addition, we have a known good ABS module and hydraulic block set for every repair listed on our website.

This gives us a benchmark so we can test your faulty unit alongside a known good unit, further increasing the reliability of our test results.

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XeMODeX Inc.	QMWI 3 – Audi ABS Module Repair Code C-123EF0		
Not controlled in hard copy	Rev. 1.0	Date:21/11/2024	Page 1 of 12
XeMODeX PN: AU.1010.8W0907379EREP.10.20		Test Con: ABS3-5003	Net_2
Application: 2016-2019 Audi Bosch 9.0		By Chris Golinski	

Audi Bosch 9.0 Code C123EF0 Repair

WORK INSTRUCTIONS

Detailed work instructions are essential to a successful diagnosis and repair process, ensuring consistency and dependability.

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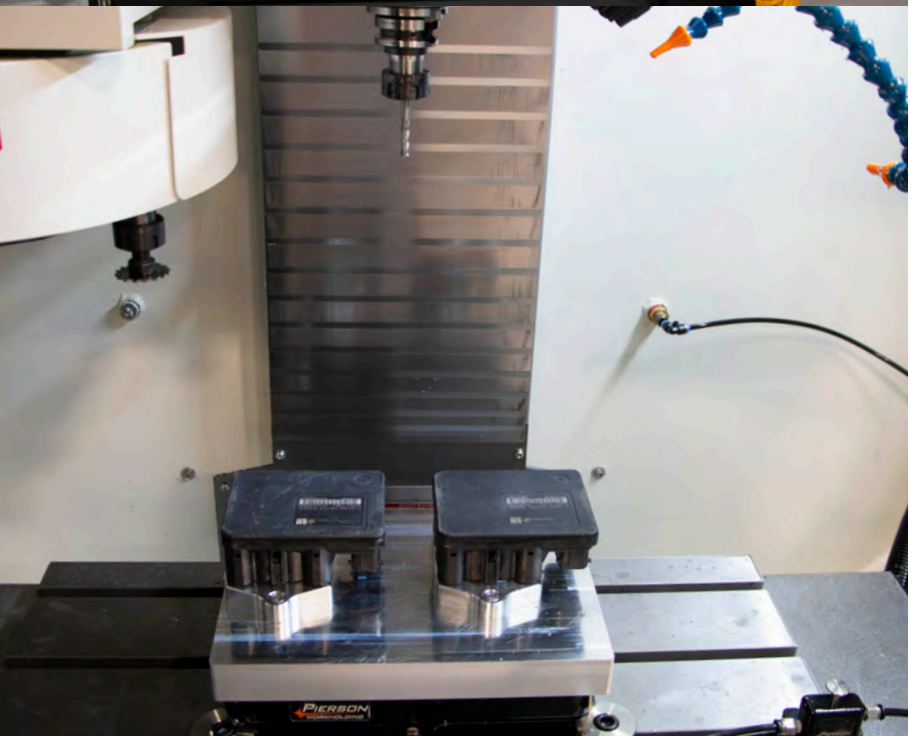

CNC MODULE OPENING

Before we connect your ABS module to our test bed, we need to ensure there is no indication of excessive internal damage that could damage our test equipment.

Your module will be opened using a computer guided CNC machine to ensure the module isn't damaged during opening and can be re-sealed properly after the repair is complete.

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ABS MODULE TEST BED

Our tester is designed to comprehensively test your ABS module. Most newer modules now communicate over the FlexRay protocol as opposed to CAN network. We've added both FlexRay and CAN network simulation for each module as needed.

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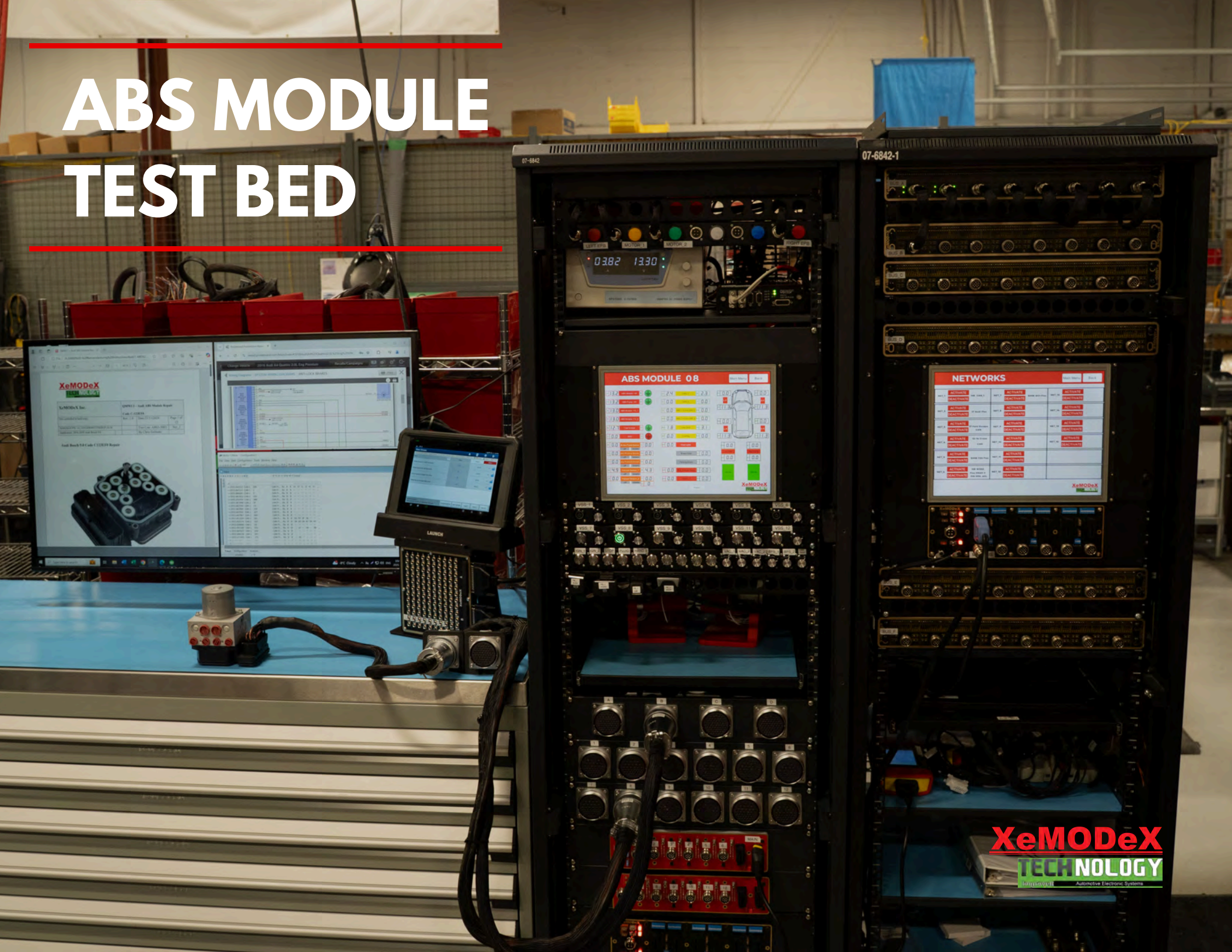
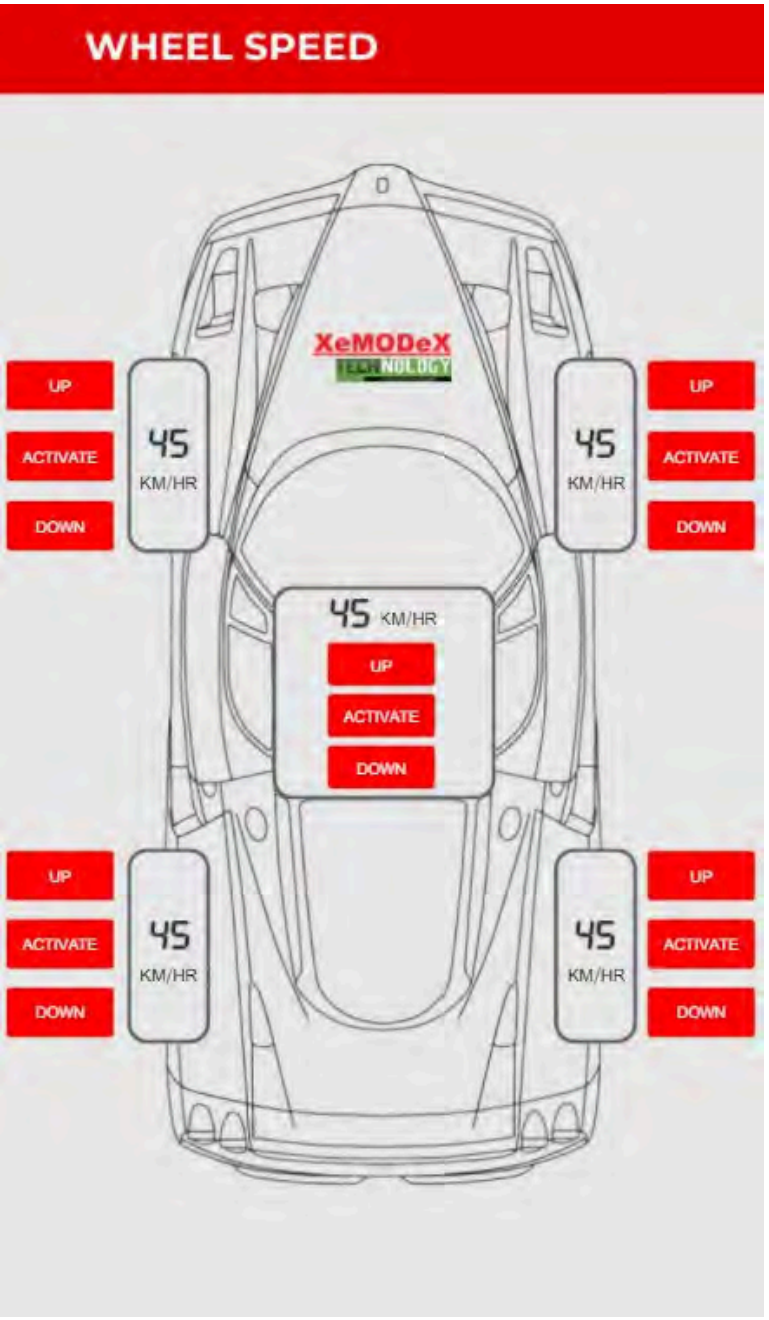
ABS MODULE TEST BED





WHEEL SPEED SENSOR SIMULATION

These are the most critical inputs the ABS module requires. Our test bed uses precise individual wheel speed sensor simulation which enables us to monitor how the module interprets these signals. The built-in self-test function of the module can be tested at speed of 40km/h.

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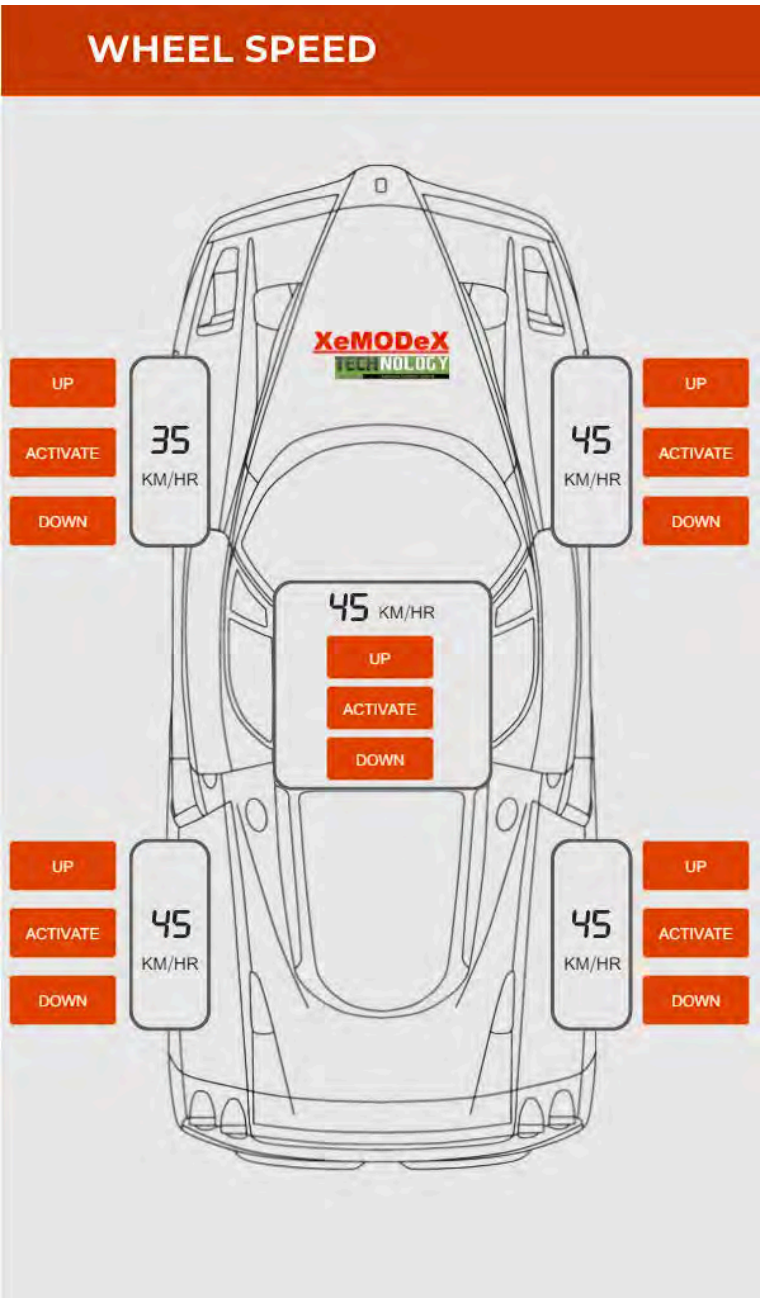

WHEEL SPEED SENSOR SIMULATION

In this example we've slowed down the speed of the L/F wheel. The ABS module will activate the inlet and outlet valves for that wheel, and the ABS pump will cycle. Live data stream confirms that the L/F speed is now 35km/h.

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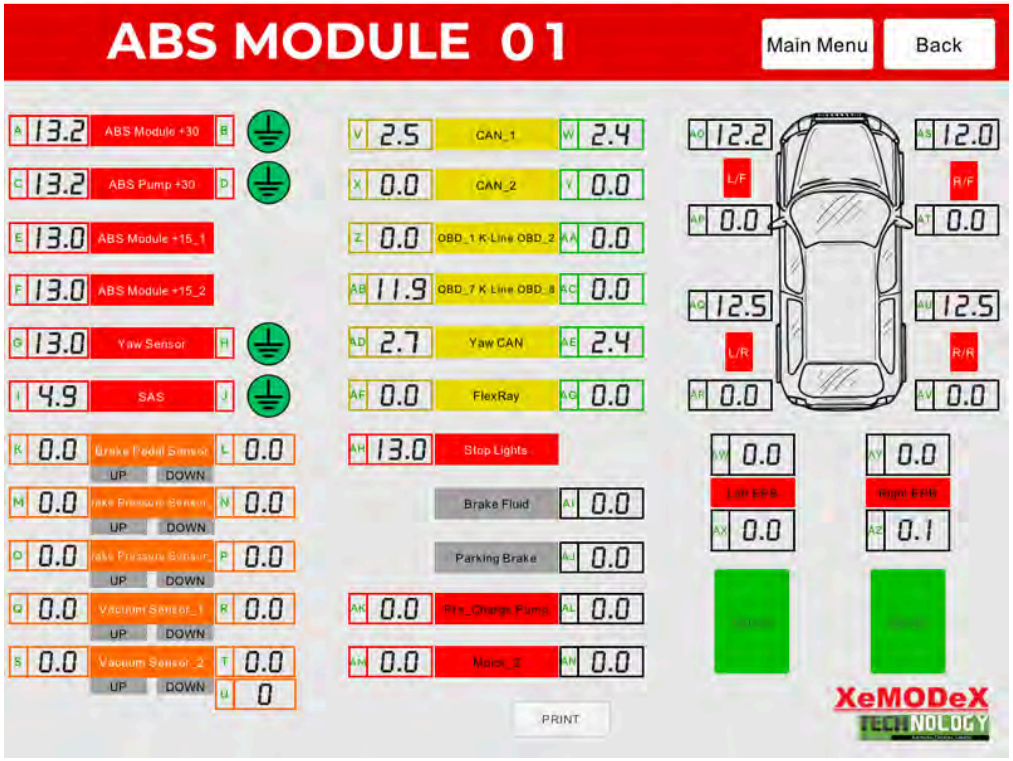

I/O SIMULATOR

Brake modules require inputs from several other sensors, such as the vacuum sensor and brake pressure sensor. It is important for the tester to emulate these signals and watch how the ABS module behaves and interprets these signals.

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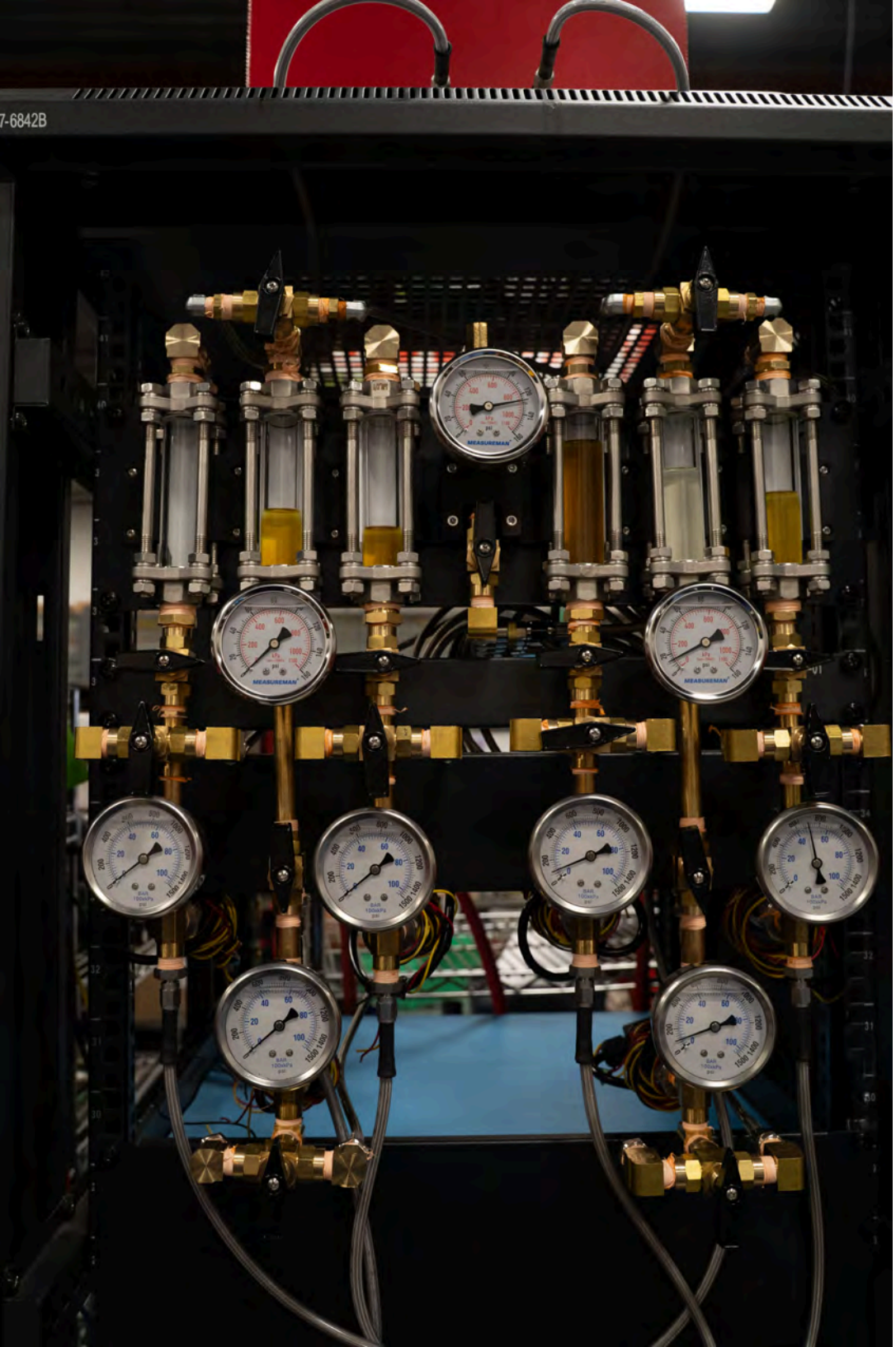

HYDRAULIC ABS BLOCK TESTER

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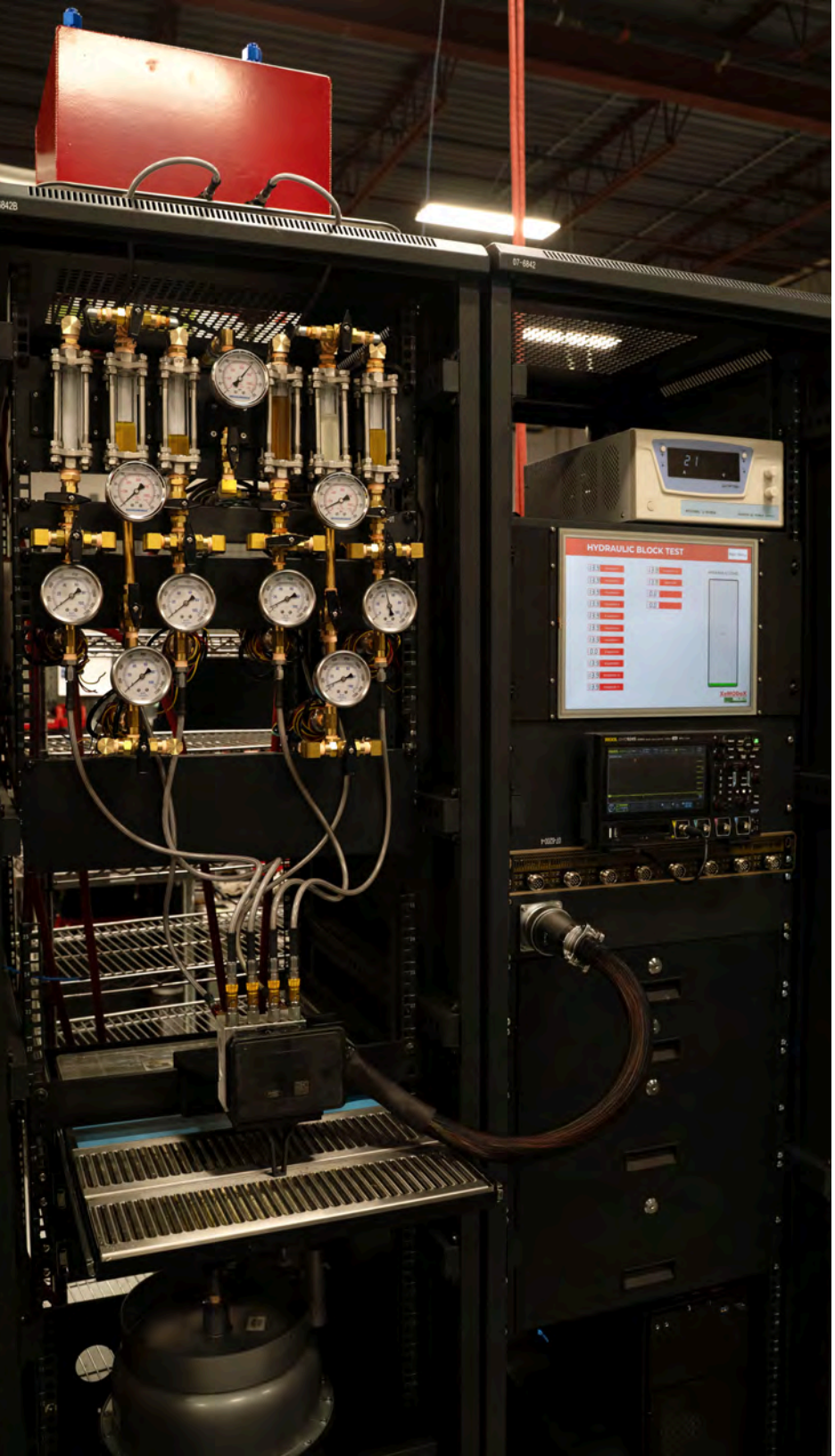

FLOW TEST

We've designed a custom hydraulic flow tester to ensure that all internal passages and valves are working properly within the ABS hydraulic block. Pressure generated by the ABS pump is also tested as well as its current draw.

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HYDRAULIC VALVES TEST

Depending on the test sequence, our tester can activate a single valve or several valves at once, along with the ABS pump. This way the pressure can be fully monitored.

Our tester can easily detect problems with:

- **Brake fluid flow to any of the wheels.**
- **Defective valves that prevent brake calipers from releasing.**
- **"Spongy" brake pedal.**
- **Etc.**

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FULLY REMANUFACTURED & FULLY TESTED BY:

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Improved Automotive Electronic Systems