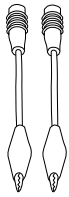
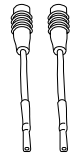
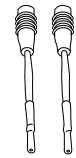
ABS+
Sensor & Signal Tester
Instructions



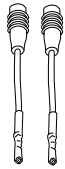
(2) Terminal Alligator
(white)



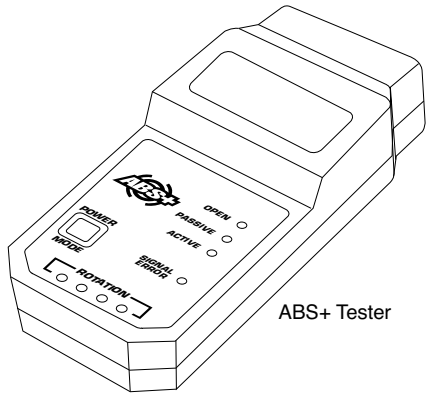
(2) Terminal Round
Small Female
(red)



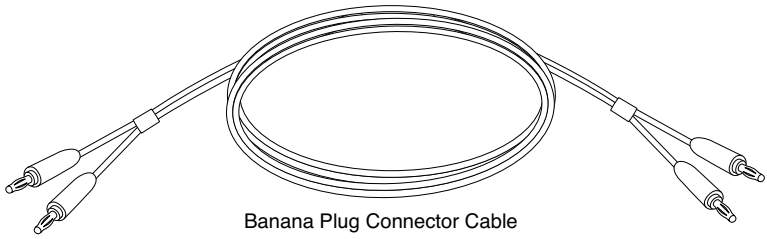
(2) Terminal Round
Medium Female
(gray)



(2) Terminal Spade
Small Female
(blue)



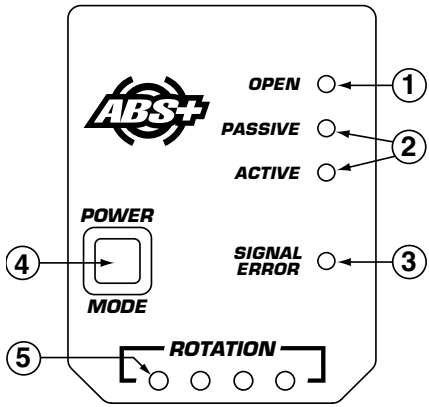
ABS+ Tester



Banana Plug Connector Cable

The ABS+ Sensor Tester and Flex Probe adapters quickly and easily isolate the sensor from the vehicle harness and control module. The tester checks both active and passive sensors for proper voltage, frequency output and reluctor wheel (tone ring) integrity. The tester will also check the passive sensor for opens.

About the Control Panel



1 **OPEN LED**—The red LED remains lit if the sensor resistance is too high or open.

2 **PASSIVE / ACTIVE LEDs**—Corresponding green LED lights to indicate the tester's current mode.

3 **ERROR LEDs**—Red LED lights or flashes when an inconsistent signal is detected. Note: A sudden start or stop of the wheel during testing may cause this light to flash. This is normal and does not indicate an error with sensor or tone/magnet wheel ring.

4 **POWER/MODE Button**—Press and hold to turn the tester ON/ OFF. Press and release to change modes.

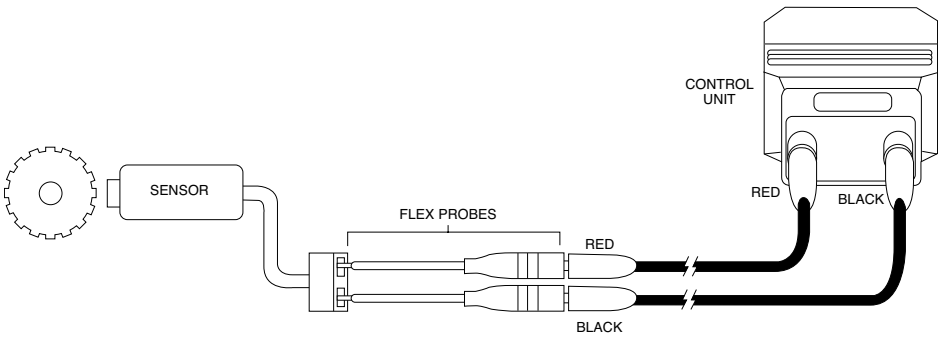
5 **ROTATION LEDs**—The green LEDs flash/chase from left to right in sequence when the wheel is rotating to indicate a good signal from the wheel speed sensor.

Before You Begin

- **IMPORTANT:** Be sure to remove keys from ignition or make sure the ignition is in the off position before disconnecting any ABS sensors. Failure to do this could result in DTC's (Diagnostic Trouble Codes) being set.
- Use a lift (or jack) to raise the vehicle so that the wheel can be freely spun by hand.

Hookup Diagram

Note: If the hookup shown does not work, swap the red and black banana plugs at the testers' connection jacks on top of the unit.



Test Procedures

IMPORTANT! Make sure to *connect to the ABS sensor terminals* ***before*** *turning the ABS+ tester on.*

—Preliminary Test—

1. Turn the tester ON and look for the following:

   OPEN LED is off— Indicates a good connection. The tester automatically defaults to PASSIVE mode and is ready for testing.

   NOTE: If you do not know the type of sensor then perform both Passive and Active Sensor test procedures in order.

   OPEN LED is lit—Recheck all connections from the sensor to the tester. If it remains lit, swap the red and black banana plugs at the tester's connection jacks on top of the unit.

   NOTE: If the OPEN LED still remains lit, the tester has deemed the sensor defective/untestable. It is recommended that you proceed with further testing by manually selecting passive or active (press mode button) to confirm that the sensor is defective.

—Passive (Reluctance) Sensor—

1. Verify the PASSIVE LED is lit, if not, press and release the POWER/MODE button until the PASSIVE LED is lit.
2. Spin the vehicle's wheel by hand at a consistent rate. The ROTATION LEDs will flash/chase from left to right in sequence indicating good sensor signal.
   - If the SIGNAL ERROR LED flashes during consistent spinning of the wheel, there is an issue with either the tone ring, or the air gap between the tone ring and the sensor.
   - If the ROTATION LEDs do not flash/chase proceed to the Active Sensor Test.

—Active (Hall Effect or Directional Digital) Sensor—

1. Press and Release the POWER/MODE button until the ACTIVE LED is lit.

   Note: A slow sequencing of the ROTATION LEDs when the wheel is stationary, is a pulse issued by certain digital directional sensors that is further indication the sensor is working and connected to the tester properly.

2. Spin the vehicle's wheel by hand at a consistent rate. The ROTATION LEDs will flash/chase left to right in sequence indicating good sensor signal.
   - If there is no activity when spinning the wheel, swap the red and black bananna plugs at the tester's connection jack on top of the unit and repeat the step above.
   - If the SIGNAL ERROR LED blinks during consistent spinning of the wheel, there is an issue with the tone/magnet ring, the wheel bearing, or the air gap between the tone/magnet ring and the sensor.
   - If none of the steps yield a definitive diagnosis it is likely there is an issue with the air gap/ tone ring or ring/magnet or the sensor is at fault.

   Note: To confirm test results, compare to a sensor on a different wheel.

To Replace the Battery

The tester uses a standard 9 volt battery. If the battery is too low to operate the tester the SIGNAL ERROR LED will flash and then the tester will automatically turn off.

The battery can easily be accessed by removing the plug located on the back of the tester.

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Warranty

Subject to the conditions that follow and are noted below, this product is warranted to be free from defects in material and workmanship, under proper use and in accordance with the manufacturer's written recommendation and specifications, for a period designated below on all products:

- This product carries a one year limited warranty.

The manufacturer's obligation under this warranty is limited to unaltered products returned to the manufacturer by the initial end user of the new products. Therefore, this warranty does not cover any products resold by the end user to third parties, nor any reconditioned products sold as such, by the manufacturer. The sole remedy for any such defect shall be the repair, or replacement, of the product at the sole discretion of the manufacturer. This warranty does not cover expendable parts, such as batteries, nor does it cover shipping or handling. In addition, manufacturer is not liable for any loss or damage to product during shipping.

In the event it is determined that the product has been tampered with, or altered in any way, this warranty is void and all claims against the product will not be honored. All warranty claims must be submitted as outlined by the manufacturer and shall be processed in accordance with the manufacturer's established warranty claim procedures. These procedures include provisions that proof of purchase must be established (by either warranty card from the seller or by point of purchase receipt) and that the manufacturer will make every attempt to return ship the product within one business day from receipt of the returned product, freight prepaid.

In addition, all maintenance procedures, as outlined by the product manuals, should be followed for the warranty to be kept in force. Should the product not be used in accordance with procedures as specified, or if the product otherwise fails outside of the warranty, the manufacturer reserves the right to make such judgment and the party returning the product will be notified that written notification will be necessary to repair the product at a cost which the manufacturer deems as reasonable. The product will then be shipped back to the customer, COD; or as the manufacturer deems appropriate.

This is the only authorized manufacturer's warranty and is in lieu of all other expressed, or implied, warranties or representations, including but not limited to any implied warranties of merchantability or fitness or any other obligations on the part of the manufacturer. In no event will the manufacturer be liable for business interruptions, loss of profit, personal injury, costs of delays, or any special, indirect, incidental or consequential damages, costs or losses.

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