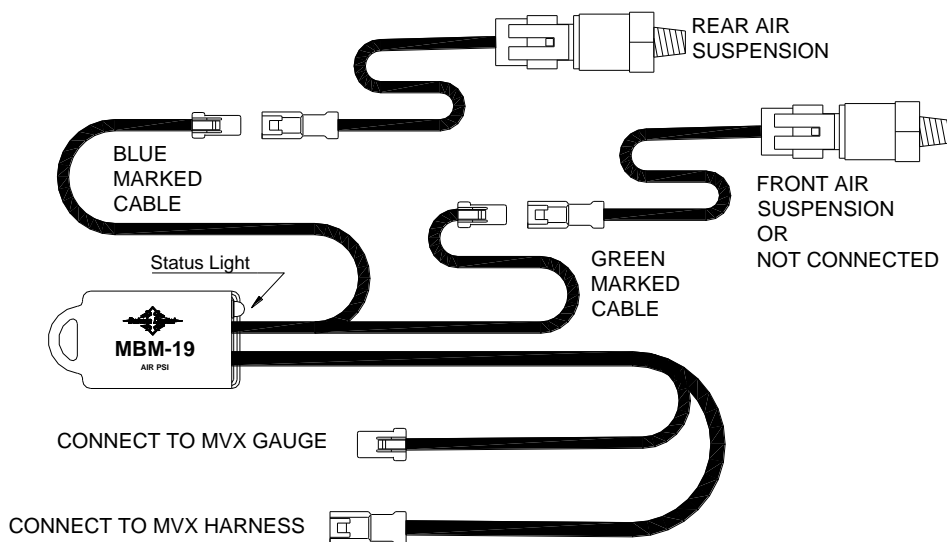




MBM-19 MVX Bus Interface Module for Air Suspension Pressure



This Motorcycle Bus Interface Module (MBM) allows direct plug in connection to add an air suspension pressure sensor to an MVX gauge system. No setup is required to get it working. On an MVX-8K or MCL-3014 gauge system unplug the power/data cable from one of the gauges closest to where you want to mount the MBM. Plug the 4-pin, female housing into the power/data harness and plug the 4-pin, male housing into the gauge. It doesn't matter which gauge is used. On an MVX-2k or MCL-3200 system, connect the 4-pin, female housing into the MBM extension harness. A 1/8" NPT to 5/32" hose T fitting is provided to easily cut and tee a 5/32" air hose to the sensor. The air pressure reading will be displayed in the message area unless an optional MVX-8K-A gauge is added. The air pressure will read from 0 – 255 psi. The digital readout in the message center has 1 psi resolution. A low pressure warning point can be set from 0 – 252 psi. A high pressure warning point can be set from 2 – 254 psi. Front and rear warning points can be set individually. The MBM-19 can monitor single or dual sensors. If only one pressure is being monitored, the blue cable should be connected and the green cable left open. The unit automatically detects which sensors are connected on power up in order to format the displays correctly.

Display format for single sensor :

00 AIR
PSI

Display format for dual sensors:

F AIR PSI R
00 00

The warning point is set up through the gauge display system.

On single sensor systems the menu is "AIR PSI WARNING", on dual sensor systems the menu is "AP REAR WARNING" and "AP FRONT WARNING"

- Make sure the MBM unit is connected to the gauge.
- Hold the switch for the gauge while turning the key on to enter the setup menu.
- Release switch.
- Press and release the switch until "SETUP DISPLAY" is shown.
- Press and hold the switch until the display blanks. Release the switch.
- Press and release the switch until "MBMS" is shown. "AP" should appear below this indicating it sees the MBM-19 Air Pressure unit connected.
- Press and hold the switch until the display blanks to enter setup for the MBM's connected.
- Release the switch. If "AIR PSI WARNING" is not displayed, press and release the switch until it is shown.
- Press and hold the switch until the display blanks to view or change the air pressure low warning.
- The display will show "LO" "WARNING" and the current setting.
- Press and release the switch to change the warning, press and hold the switch to save it.
- Press and hold the switch until the display blanks to view or change the air pressure high warning.
- The display will show "HI" "WARNING" and the current setting.
- Press and release the switch to change the warning, press and hold the switch to save it.
- Once finished, you may select "DONE" to exit or turn the key off.

Troubleshooting quick tips:

While the MBM is operating, the light next to the cables will indicate the status. On steady indicates it is powered up but not receiving any bus activity. Slowly flashing indicates it is communicating on the bus. Rapidly flashing indicates two of the same MBM are connected and colliding.

Troubleshooting guide.

Problem	Possible cause	Solution
Sensor does not show on gauge readout. MBM status light off.	Power/Data harness connector not seated fully. Power/Data harness damaged. Module is damaged.	Reseat harness connector. Inspect harness for pinched or cut wires, replace if necessary. Return for service. (see instructions)
Sensor does not show on gauge readout. MBM status light on steady.	Power/Data harness connector not seated fully. Power/Data harness damaged. On MVX-8K systems, the MBM display for may be on the speed or tach.	Reseat harness connector. Inspect harness for pinched or cut wires, replace if necessary. Cycle through all messages on both gauges to check for the reading.
Sensor does not show on gauge readout. MBM status light slow flash.	On MVX-8K systems, the MBM display for may be on the speed or tach. If a MVX-8K-A gauge is connected, the digital readout is automatically hidden.	Cycle through all messages on both gauges to check for the reading. Enter setup to enable all digital readouts if desired.
Gauge lights up, but does not read correctly.	Loose connection on sensor wires. Connector not seated on sensor. Incorrect sensor is connected. Sensor attached to incorrect location on the suspension.	Inspect and reconnect wires. Reattach the sensor plug, making sure the locking tab clicks in place. Only the supplied sensor can be used. Check the location and move to a different position if necessary.
Gauge lights up, but displays "---".	Sensor wire is shorted to ground. Sensor is not connected to MBM. Sensor wire is damaged. Sensor is damaged. Module is damaged.	Check wire for damaged insulation. Replace if necessary. Connect harness from module to sensor wires. (see wiring diagram) Test and replace wire. Replace sensor. Return module for service. (see instructions)
Gauge lights up, but displays "EEE".	Sensor is not connected to MBM. Wire between MBM and sensor is broken. Sensor is damaged.	Connect harness from module to sensor wires. (see wiring diagram) Test and replace wire. Replace sensor.

Sensor voltage tests: (test with MBM powered and sensor connected.)

red wire: 4.5 – 5.0 V

green wire: 0.4 – 4.5V (0.4 – 0.6V with 0 psi)

black wire: 0 volts

SERVICE AND REPAIR

DAKOTA DIGITAL offers complete service and repair of its product line. In addition, technical consultation is available to help you work through any questions or problems you may be having installing one of our products. Please read through the Troubleshooting Guide. There, you will find the solution to most problems.

Should you ever need to send the unit back for repairs, please call our technical support line, (605) 332-6513, to request a Return Merchandise Authorization number. Package the product in a good quality box along with plenty of packing material. Ship the product by UPS or insured Parcel Post. Be sure to include the RMA number on the package, and include a complete description of the problem with RMA number, your full name and address (street address preferred), and a telephone number where you can be reached during the day. Any returns for warranty work must include a copy of the dated sales receipt from your place of purchase. Send no money. We will bill you after repair.

Dakota Digital 24 Month Warranty

DAKOTA DIGITAL warrants to the ORIGINAL PURCHASER of this product that should it, under normal use and condition, be proven defective in material or workmanship within 24 MONTHS FROM THE DATE OF PURCHASE, such defect(s) will be repaired or replaced at Dakota Digital's option.

This warranty does not cover nor extend to damage to the vehicle's systems, and does not cover removal or reinstallation of the product. This Warranty does not apply to any product or part thereof which in the opinion of the Company has been damaged through alteration, improper installation, mishandling, misuse, neglect, or accident.

This Warranty is in lieu of all other expressed warranties or liabilities. Any implied warranties, including any implied warranty of merchantability, shall be limited to the duration of this written warranty. Any action for breach of any warranty hereunder, including any implied warranty of merchantability, must be brought within a period of 24 months from date of original purchase. No person or representative is authorized to assume, for Dakota Digital, any liability other than expressed herein in connection with the sale of this product.



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