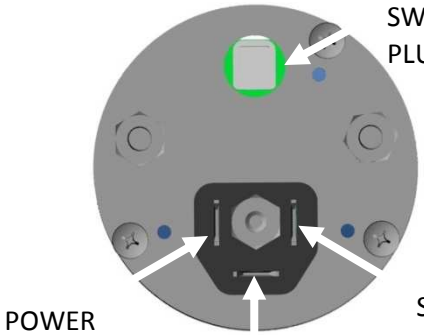
MCL-3K-B and MCL-3K-B-R
(Vac.) Boost Gauge
MCL-3000/3006 Instrument Packages

This gauge can replace any ONE of the original four small gauges in the Dakota Digital MCL-3000 and MCL-3006 products. ***Only one auxiliary gauge: boost, air temp, or air pressure can be used at a time or the setup menus will not function properly as the auxiliary gauge is number 8 in setup.***

The gauge will read boost and vacuum. Vacuum numbers have a negative sign in front of the reading.

zero pres.	15 psi boost	20 inHg vacuum
0.0	15.0	-20

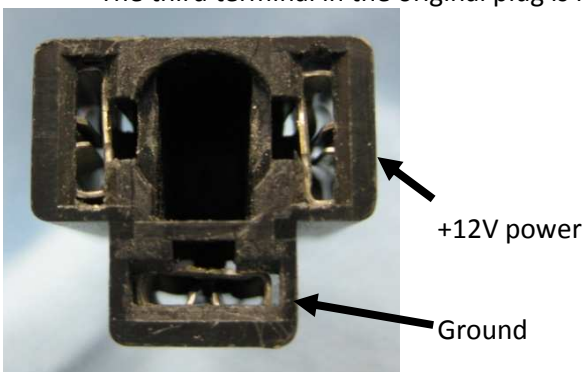
Remove the desired gauge where you will be installing the boost gauge. The gauge will mount just as the previous gauge, using the original hold down clamp with the supplied thumb nuts.



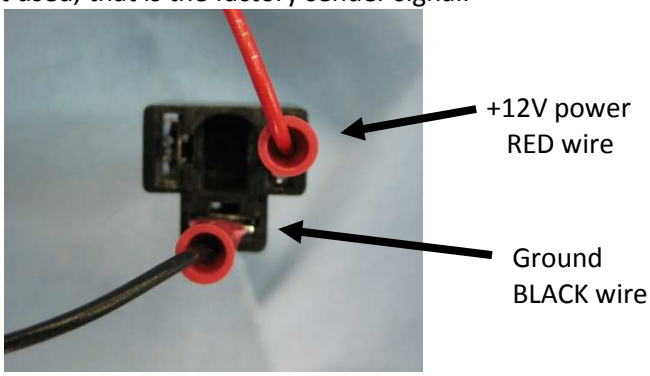
Wiring the gauge will be slightly different than before as the bike doesn't have provisions for the new sensor. Use the supplied sensor and wiring to make a jumper harness from the original plug to the new BOOST gauge. ****DO NOT connect the factory connector direct to the gauge, use supplied wiring.***

Connect the power and ground male spade terminal ends into the original plug as shown.

- The red +12V keyed power connects to the orange wire in the original plug.
  The power wire for the gauge is the short single red wire that has a male spade on one end and female spade at the other.
- The black ground wire connects to the black wire in the original plug.
- The third terminal in the original plug is not used; that is the factory sender signal.



Original plug on bike



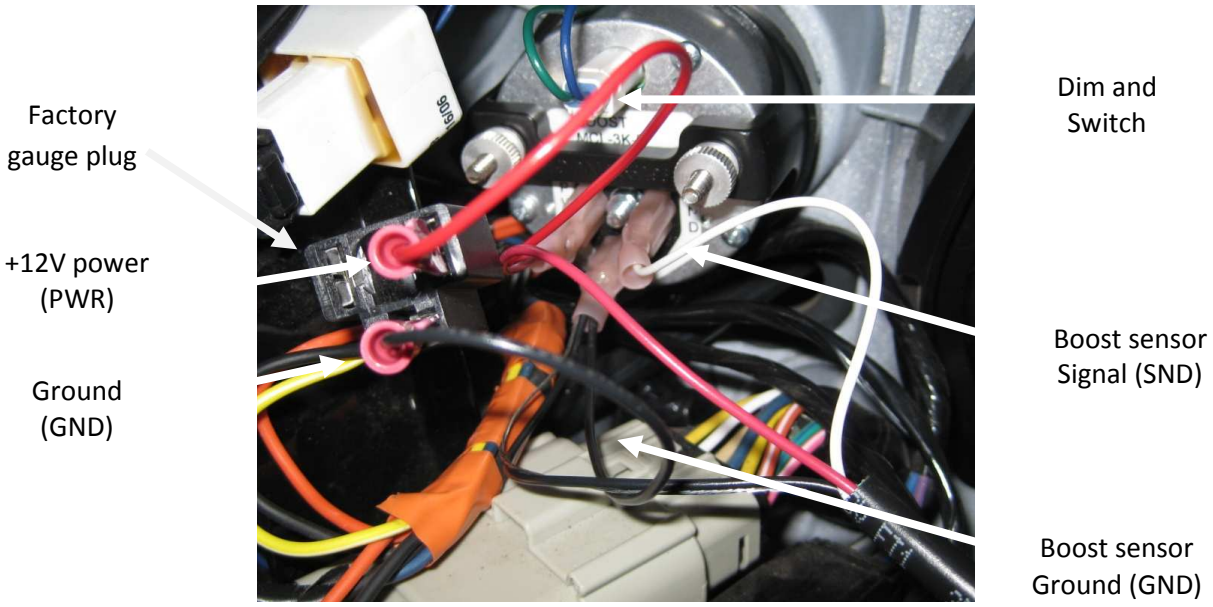
Original plug with jumper wires for power and ground connected

Next, attach the power, ground, and sender wires at the gauge using the insulated female spade ends of the wires. Please note that the sensor has a red, black, and white wire running into a black cable. The Red power wire for the gauge has two wires coming out of it, one for gauge power and one for sensor power. The Black ground wire at the gauge also has two wires coming out of it, one for gauge ground and the other for sensor ground. The White sensor signal wire has just a single wire in an insulated female spade, and this connects to the SND terminal at the guage.

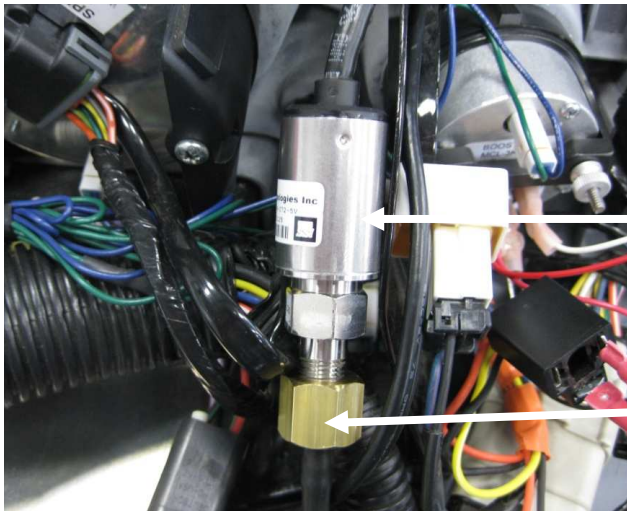
The small, white, two-pin connector on the gauge is the common switch and dim line (green and blue wires) shared with all gauges in the set. This is used to get into set up and allow the gauges to dim together as a set. You have two options to install this:

1.) If you are replacing a gauge in the set
Plug the small, white, two-pin connector into the boost gauge just as it was on the other gauge you removed. The additional supplied switch/dim harness will not be used.

2.) If you are adding this gauge to the set rather than replacing one (you will have a total of 5 small Dakota Digital gauges on the bike) you will have to wire in the supplied switch/dim harness. The green wire is for switch and the blue wire is for dim. These wires will need to be spliced into the other Dakota Digital switch and dim wires. Locate anyone of the other blue and green wires going to the other gauges in the set, cut and splice in the new harness; green to green, blue to blue.



To complete the installation, thread the supplied 1/8” NPT to 1/8” vacuum line adaptor on the end of the sensor (thread sealant may be used to seal the threads). Secure the sensor to a fairing bracket or some of the wiring behind the fairing making sure it doesn’t interfere with the outer fairing.
Lastly, route the supplied 1/8” vacuum line to an appropriate spot to pick up boost pressure from the turbo or super charger. The supplied “T” can be used to t-into and existing vacuum line.



SEN-09-5-M
Boost Sensor

1/8” NPT to 1/8”
Vac. hose fitting

GAUGE SETUP

The function switch, or trip switch, discussed in the MCL-3000/3006 manual, is used to enter setup mode for all of the gauges. The first step in the setup procedure is to select which gauge you are going to select to change a setting. Each gauge will either show a number or a label. If the gauge is showing a label then that gauge will be selected to enter setup. All of the other gauges will exit setup and allow the selected gauge to be changed. Press and release the switch to advance through the menus below, when on the desired option, press and hold the switch to select setup for that particular gauge/function. In setup for the boost gauge you can select the atmospheric pressure for your elevation, select a high boost warning point, and select a display update speed.

	Speed	Tach	Oil psi	Oil temp	Fuel	Volt	Boost
1st	- 1 -	CL	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
2nd	SPd	- 2 -	- 2 -	- 2 -	- 2 -	- 2 -	- 2 -
3rd	- 3 -	tCH	- 3 -	- 3 -	- 3 -	- 3 -	- 3 -
4th	- 4 -	- 4 -	PSI	- 4 -	- 4 -	- 4 -	- 4 -
5th	- 5 -	- 5 -	- 5 -	F or C	- 5 -	- 5 -	- 5 -
6th	- 6 -	- 6 -	- 6 -	- 6 -	FUL	- 6 -	- 6 -
7th	- 7 -	- 7 -	- 7 -	- 7 -	- 7 -	ULt	- 7 -
8th	- 8 -	- 8 -	- 8 -	- 8 -	- 8 -	- 8 -	bSt

- Press and hold the push button while turning the key on. Release the switch, and then press and release the switch watching the setup numbers on all the gauges increment until you get to “-8-” on the other gauges and “bSt”on the new boost gauge.
- Press and hold the switch until “AbS” is displayed in the boost gauge to jump into setup.
- Press and release the switch to toggle through the values in the table on the following page to select the appropriate atmospheric pressure (PSIA) for the desired elevation (typical is 14.6 or 14.8). If you know the barometric pressure in inHg, that can be used to look up the appropriate PSIA.
- When the desired atmospheric pressure is displayed, press and hold the switch until “H I” is displayed.
- Press and release the switch to toggle through to the desired high pressure warning point, 5-35 psi. This will be the high boost warning point.
- When the desired high pressure value is displayed, press and hold the switch until “SPd” is displayed.
- Press and release the switch to toggle from “SLo” for a slower averaged reading on the gauge, “HLd” for a peak and hold reading, or “FSt” for a faster update less averaged reading.
- When the desired update rate is displayed, press and hold the switch until “---” is displayed to save changes.
- Release the switch and turn the key off to cycle the power and then back on. All gauges should be in normal mode; setup is complete.

Elevation above sea level	inHg	PSIA
-2700	32.4	16.2
-2400	32	16
-2000	31.6	15.8
-1700	31.2	15.6
-1300	30.8	15.4
-1000	30.4	15.2
-600	30	15
-200	29.6	14.8
200	29.2	14.6
600	28.8	14.4
900	28.4	14.2
1300	28	14
1700	27.6	13.8
2100	27.2	13.6
2500	26.8	13.4
2900	26.4	13.2

Elevation above sea level	inHg	PSIA
3300	26	13
3700	25.6	12.8
4200	25.2	12.6
4600	24.8	12.4
5000	24.4	12.2
5500	24	12
5900	23.6	11.8
6400	23.2	11.6
6800	22.8	11.4
7300	22.4	11.2
7800	22	11
8200	21.6	10.8
8700	21.2	10.6
9200	20.8	10.4
9700	20.4	10.2

Troubleshooting guide

Problem	Possible cause	Solution
Gauge will not light up.	Orange wire does not have power. Black wire is not getting a good ground. Gauge is damaged.	Connect to a location that has power, check fuses. Connect ground to a different location. Return gauge for repair. (see instructions)
Gauge reading is erratic or jumps around.	Gauge signal wire is loose or broken. Poor ground connection.	Check all wire connections and inspect wire for breaks. Check ground connection on gauge, engine, and sensor.
Gauge reading is incorrect.	Incorrect PSIA selected. Sensor is damaged . .	Check setup for ABS value. Verify wiring or replace sensor.
Gauge will not dim.	Blue wire (2-pin harness) is not connected correctly.	Check wiring connections. Blue wire should have 12 volts when tachometer is dim.
Gauge remains dim at all times.	Blue wire (2-wire harness) is getting power all all of the time.	Check wiring connections. Blue wire should have 0 volts when tachometer is bright.
Gauge will not enter setup.	Green wire (2-wire harness) is not connected correctly.	Check wiring connections. Green wire should have 12 volts when the switch is pressed.

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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